



ADDRESS TO STUDENTS. Delivered by the President, Professor AITCHISON, R.A.,
at the Sixth General Meeting, 23rd January 1899.

IT is customary in this month to give an Address to Students, and it is one of the pleasantest duties the President has to perform.

The world consists of the Past, the Present, and the Future. The Past is hopeless : it cannot be altered or improved ; it can only be studied. The Present, of which the practising architects are representatives, is too well known to dilate on ; and the immediate Future consists of the students, and they allow us to conjure up all sorts of visions, and to delight ourselves with fancying that their works will be stamped with the perfection that ours have missed.

Aristotle tells us that most things can be equally well or better done by youth than by age : but there is one thing that age alone can give—that is, experience. I think it is a pleasure to all men of some years to convey as much of the results of their experience as they can to the young who are following in their footsteps, or are about to follow. In an art like ours it is very difficult to know what useful experience we have to impart—I mean æsthetic experience—because our views and those of the rising generation are probably different, if not opposed. I give you some remarks of Professor Cockerell to the R.A. students of my day : “ That they should study all styles, for they can never tell how fashion will change, and that the style they have chosen may not be abandoned.” This was said when imitation Gothic was all the rage.

I hope for an advancement of architecture which will take every one, and that, when it does come, will not be an imitation of some dead style.

At present, at least, we have no means of evoking genius, and the only means that has yet occurred to me to improve our art is by learning principles and by striving. It is true that I was found fault with by one of my hearers on a former occasion for not invoking the aid of the Almighty ; but it seemed to me then, as it does now, that my business is to say as far as I can what earthly methods, and what earthly methods only, have the chance of improving us.

There is one thing I have remarked—that all the sciences and arts seem to go in cycles, or, as we should say, are mounted on Fortune’s wheel, and, as it turns, one art or science is at the top of the wheel while the other is in the mud, and as it goes round the positions are reversed. It is not very easy to trace the cause of these epochs, but we can safely say that, at the present moment, the epoch is that of the application of science, and is on the top of the wheel, while architecture is very low down. When these epochs occur, the whole atmosphere is, as it were, full of the desire for excellence in the particular art or science then coming into vogue, as a knowledge of Roman architecture was at the time of the Italian Renaissance. At such times men of the most transcendent abilities have an ambition to succeed in the new fashion, even though it promise but little wealth, and very often nothing but the escape from starvation,

even if it offer that. Milton's was in England a poetic age, though he got for his *Paradise Lost* little more than the price of waste paper: but he at least got an immortality of more than 200 years, and we know not how many more centuries he will last and be studied; while poor Otway, the author of the once admired *Venice Preserved*, who lived in the same century, is said to have died of starvation; and, though he was popular in his time, I am afraid there are few but professed students of dramatic literature who have ever read a line of his. A great incentive to any kind of study or achievement is that of being thought highly of by your contemporaries, though there is a higher stimulus in the hope of that sort of immortality which mortals can attain.

One of these inducements at the present time is impossible to be looked for—I mean the admiration of your fellow-men; for who knows or cares whether your work is good, bad, or indifferent?—except perhaps a brother architect. I do not know if the sort of limited immortality any one can get has ever been obtained by those who have not been admired by their contemporaries; at any rate, it has not commonly been the case. Yet we hear all the unsuccessful votaries of the fine arts saying, that though their works may not be appreciated now, they will be appreciated by posterity. I have admired architecture I have casually seen, without knowing the name of the architect, or whether he were alive, and thought this was by a good man, which I hope, if he is dead, may be some satisfaction to his manes. Architecture, at least in good times, does not so much represent the proclivities of the artist as the general aspirations of the people; for, though the great artist seems only to portray his own ideas, he must, if popular, do admirably what every one desires to do himself, in spite of Dr. Johnson's attempted refutation of Boswell's remark that "the poet only says what every man thinks and would say": "Then, sir, according to you, the poet is only the tailor of other men's thoughts." At any rate, architecture must have conveyed to the minds of the people when it was built the sort of effect that they desired, for models were mostly made for approval before the building was done, while to future generations it clearly speaks of the taste and inclination of the age in which it was produced: it shows the genius and knowledge of the architect and the skill and care of the workmen, so that if a ruin is seen, or a considerable architectural fragment is found, we cannot help forming a strong opinion of the taste, skill, and proclivities of that age.

I think I have pretty well expressed the indifference of the present age to architecture, so that you cannot expect much honour or reverence on account of your work, or that it will cause much pleasure or delight to the living beholders. It becomes questionable whether there is enough stimulant to attract men who possess the intellectual faculties necessary for producing fine architecture—I mean such architecture as will be admired for two or three thousand years. I hope that my observation has been wrong as to the chances of immortality for those whose works are disregarded by their contemporaries, for if the architect is really before his time, he should be recognised by those that come afterwards. I cannot even give that sort of encouragement to the students that used to be given me when I was a boy—that all men had equal abilities, and the great man was merely distinguished by greater perseverance and industry, although it is quite clear that extraordinary industry and perseverance are the concomitants of genius. I think I understate the case if I say that one considerable architectural genius is to be found among 100,000 of the inhabitants of any highly civilised country. To be a great architect involves a capacity for acquiring the higher branches of mathematics and to be able to use them; to comprehend at least that branch of Natural Philosophy that is called Statics, and even to advance beyond the point at which it has then arrived; to so arrange a building as not only to fit it for its purpose, but to put it in a shape that will command the admiration of skilled and

cultivated beholders, and to invest the finished structure with a capability of exciting emotions that are proper to its use. Architecturally this is brought about by simplicity, by perfection of proportion, by outline, by the proper disposition of light and shade, and by size and mass. To the former qualifications of the architect must be added the capacity of knowing what additional interest can be given to important parts by sculpture, and how colour can be properly applied to the whole structure. Of course it would be infinitely better for the architect to possess the whole of these qualifications; I do not know whether this was ever the case, though Sir Christopher Wren very closely approached it. We know that in whatever excellent qualities the Renaissance architects were deficient, they were mostly sculptors or painters. Where they were deficient was in construction, in invention, and in the proper expression of their buildings.

According to Mr. Ruskin, all the architects of the world since Greek times were sculptors, and the sculptors thought, like Mr. Ruskin, that pure architecture was ridiculously easy, or came naturally to all men. I think that he was conversant with the history of the Renaissance architects, who were undoubtedly sculptors or painters, and applied these qualifications to the Greek and Mediæval architects; but, as far as I can find out, there is not the slightest ground for believing it true of the Mediævals. His Excellency Monsieur Jusserand tells us of a monk who was allowed to have a nude model to make studies from for a crucifix, but we have not the slightest hint that he was an architect as well; and the note-book of Wilars de Honcourt, whom we know to have been an able architect, does not impress us by his sketches with the idea of his being a competent sculptor or painter. Some profound students of Greek literature would probably be able to confirm or deny the hypothesis that all the Greek architects were sculptors; but considering that we do not know that Phidias was an architect, it seems unlikely that the great architects were sculptors or that the great sculptors were architects. Aristotle was a great admirer of architectural art, and any one bent on knowing whether the architects were sculptors as well, might find indications of it by reading through his voluminous works to that end. Plato was evidently conversant with the craftsmen of his time, but I do not recollect any suggestion of his that the Greek architects were sculptors. We know from Trajan's letter to the younger Pliny that the Roman architects were mostly got from Greece, but we do not know whether they were sculptors as well.

Most of you probably know that Pascal considered architecture a progressive art, and we all know that it did progress most rapidly in constructive skill, from the end of Romanesque days through Gothic times almost to the very end, and that it also changed its æsthetic expression several times.

I think all of us desire to see architecture progress more especially in æsthetic expression.

Since the application to building of cast iron, wrought iron, and steel, the engineers have surpassed even the wildest imagination of sixty years ago. The Britannia Tubular Bridge is, as far as I recollect, 500-feet span, but Sir Benjamin Baker has made a span of the Forth Bridge over 1,700 feet. It is very unlikely that any architectural work would require a span of more than a tenth of that bearing, and that supposes an extension of more than double the span of the largest groined vault of the Romans, which was only about 80 feet. Still we must to a certain extent look for the advancement of architecture in a nicer adjustment of the mass to its height and to the weight to be carried, and to the form to be given to the supports for the weights and strains that come on each particular piece. In the use of iron and steel architects are very much handicapped, first on account of the slenderness of proportion which, as a rule, renders them unfit to compose with weaker materials, but mainly on account of the little resistance these materials offer to the action of fire, unless they

are protected by fireclay and terra-cotta : and when they are so protected they very nearly assimilate in size to the supports of old-world structures. Still, as I have so often said before, I think if the Mediaeval architects had possessed these materials and been able to work them as we can, they certainly would not have abstained from using them, as architects of the present day have mostly done. What visions does the use of cast iron raise in our minds as to the possible size and height of buildings ! What new forms and shapes does not cast iron suggest when we know that it will take any form we please and any ornaments that can be cast ! What visions of colour does it not evoke when it may be made resplendent with enamel !

No one can say that convenience in planning is not greatly studied in the present day, but this convenience has mostly been of the purest utilitarian sort : it has been a question of how the accommodation wanted can be packed anyhow, which should not be the aim of architectural planning, which now, alas ! is hardly thought of. The other thing to be aimed at is to give expression to the thoughts, cultivation, and aspirations of the present day, a subject that requires the deepest study and a perspicacity that is rare ; for, though we are quite certain that many buildings have not got the proper expression, it is not so easy to say how the proper expression should be got. We have ransacked all the civilised architecture of the past and made collections of it for use, but we have certainly not applied the examples with discretion. The delicate ornaments and suggestive sculpture that were applied to the embellishment of the boudoirs and pleasure-houses of Renaissance beauties, is now lavished on oyster-shops, public-houses, and clothiers' warehouses, on which fluttering cupids are out of place, and the magnificence and stateliness of the palaces of great nobles now deck stores or hotels. We can at once pronounce these to be absurd, but we can hardly lay down a rule for the right expression which should be applied to the immense variety of buildings that are erected ; for although we are familiar with the term "playful" applied to some buildings by the architects of two generations ago, we hardly know in what that playfulness consisted.

We must not forget the effects of association. Pediments were only found on temples during the Roman Republic, and Cicero expected to see them in heaven. Gothic with us is mostly associated with cathedrals and churches, and is therefore looked on by the public as a holy style. This, of course, is absurd, for the style in vogue was always used indifferently for all sorts of structures, when there was a style ; but the architects did not bestow the same character on a coal-store or a tinker's shop as they did on a cathedral, and when the outside of a building shows what is wanted in the inside, the cathedral and the tinker's shop will not be quite alike, nor should the tinker's shop be decked with the same enrichments as the cathedral.

You know that architecture is the most difficult of the visual fine arts, yet there is much more labour spent on learning painting and sculpture than there is on learning architecture, and the votaries of these fine arts commonly have more natural aptitude to start with. We know the painful years students of painting and sculpture devote to getting the groundwork of their art, while from three to five years spent in an office, mostly in tracing, is thought enough for an architect.

Although I do not think that the test of examination is a very complete one, it is better than nothing ; but yet the profession generally thinks even this too much, and utterly declines to start a more complete one for Fellows, being afraid that a knowledge of the elements of architecture may damp the ardour of Genius or clip its wings ; while almost all the other professions have examinations for the two classes, and have consequently advanced at a much more rapid rate.

There are two points to which I beg to draw your particular attention—first, that architecture is a structural art, and that all an architect can do, as an architect, is to build : in his structures he has to show his knowledge, taste and skill, his learning, morals, cultiva-

tion, and aspirations. The Mediaeval architects in their ecclesiastical buildings showed their hopes and adoration by lanterns, towers, and spires, by lofty naves, daring construction, and intricate patterns. When we have arrived at their pitch of knowledge and skill we must show our parts, inventions, and aspirations in similar ways, not as they did with almost pure geometrical figures, but with more graceful, refined, and daring work. Secondly, to point out the comparative scarcity of the use of coloured and glazed materials for external facings where the greatest beauty of colour and form may be used. It is refreshing even to think of London and other manufacturing towns presenting us with beautifully coloured and enriched fronts, that do not want painting every year, and would render such towns cheerful, if not delightful, to look on, in the place of the dingy, sooty, and depressing houses faced with stone, brick, or plaster; and this would not only raise our spirits under our leaden skies and drizzling rain, but be more healthful, for glazed pottery absorbs but little moisture, and is easily cleansed from soot and dust.

I am glad to see that we have admitted ladies to the Associateship, for that allows us to avail ourselves of the abilities of at least another half of the population, and, if you will pardon the bull, the larger half, as well as to offer a small meed of justice to the fair sex.

REVIEW OF WORKS SUBMITTED FOR PRIZES AND STUDENTSHIPS 1899.

By BERESFORD PITE [*F.*].

THE students' competitions in Design at the Royal Institute have some importance and general value beyond the interest of the subjects dealt with or of the individuality of their authors. When the subjects are of general interest, as is the case this year; and, as we are also glad to note, when the number of competitors is ample and sufficient to afford a comparative exhibition, a review is presented of the development, not only of the results of architectural education, but of the operation of those elements which are moulding the progress of the art of design in building. In the competitions for the Soane Medallion and the Tite Prize nineteen designs have been submitted, all, without much qualification, the work of students having adequate training in preparing sets of drawings for such competitions. There are among so many designs evidences of stray influences and of some enthusiasms, but owing probably to the generally monumental character of the two subjects, a Concert-Hall and a Royal Mausoleum, the works as a whole enable a fair estimate to be formed of the paths which the study of design in England is taking.

There is a manifest desire to return to classic tradition in both these subjects—that is, to the standards of design in mass and detail that were current before the Romanticism of the Gothic and Queen Anne revivals coloured the dreams of young and old architects alike. But the return to the once discarded pathway is neither direct nor comfortable, and the halting recognition of the force of traditions which have been transgressed with impunity, suggests a confession of failure almost of the nature of a penance, certainly a pilgrimage without the joy of a sketching excursion and without much hope or energy in imaginative effort.

The designs for the Concert Hall that seem to indicate this somewhat pessimistic attitude, and can be classed as unwilling if not unhappy designs, are, mentioning them alphabetically, "Ben Marcato," "Cecilia," "Civitali," "Honor," "Lion-Rampant," "Si je puis," and "Sol fa." "Ben Marcato" accepts the inevitable with the best *sangfroid*, and therefore seems to obtain the award; the external dignity, the single, great, and fairly proportioned order, supported by wings

of subsidiary scale, make the design what it is ; while the disregard of constructional expression, the building up of such enormous features as the attached columns of the peristyle, and the return entablatures, without any basis in the plan or constructive scheme, are symptoms of that road to architectural ruin which once led from Regent Street to Regent's Park. These columns should be hollow, as they stand on cross girders and thin walls, and the entablature should for the same reason be a shell in lengths of about forty feet. Stucco is the inevitable outcome of taking up the Victorian classic tradition where it was dropped a generation ago. The pursuit of architectural study abroad, and especially with regard to the plan and arrangements of concert-rooms, can safely be recommended to the successful student.

Other designs return to the traditional classic style, with traces of a freer influence as to detail and composition, but in almost every case without a sufficient sense of symmetrical propriety or of dignity of proportion. "Si je puis" is wrong where he is free—the license which cuts a semicircular arch into two parts with a pier under its keystone, and divides the colonnade below a pediment in the centre, is freedom in weakness. This design has care in its plan and some dignity of arrangement in the elevations, but has no architectural character worthily developed.

"Lion Rampant" has more evidences of life, perhaps some excess of it (which was the complaint of which Dr. John Brown's little dog died). The breadth of treatment internally and externally and the beautiful draughtsmanship of the detail drawing should be commended, and the tendency to originality a little chastened.

"Cecilia" carefully brings somewhat of the Georgian feeling into the classic treatment of her design, and has a too severely square plan and very large rounded pediments to express it in elevation ; the general scale of detail is rather small, but the use of large freely-drawn swag ornament may be commended.

"Honor's" domical antechamber will illustrate to students the truth that an architectural imaginative idea needs embodiment in the facts of the building ; that Pegasus must be ridden by the poet, not harnessed in front of his vehicle, or he may kick it into insignificance.

"Sol fa" needs connection both of idea and of parts. A boldly corbelled gallery as the attic of his front is supported over a deeply-recessed arcade from which projects a porte cochère, an arrangement of ideas which is contradictory.

Though grouped with the traditional classicists, "Civitali" occupies a position nearer satisfactory originality and acceptance of traditional proportions, but in common with the foregoing authors is suffering from the almost complete lack during the past era of a systematic study of classic proportion. The design is broad, and the concentration of interest satisfactory, but the composition of the parts is ignorant. Students of classic architecture, if they would achieve success apart from mere archæologic reproduction, must undertake the groundwork of the orders otherwise than as mere "testimonies of study"—which have not been studied. Sir William Chambers's text-book and system should be assimilated and studied, and beauty of parts sought after rather than originality.

There is another group of designs for the Soane competition that merit attention as a whole. They are neither Gothic nor Queen Anne, but are certainly Romantic. The avoidance of architectural traditional forms is now earnestly advocated as essential to the regeneration of current building art. The doctrine shows a healthy reaction against the deadness of reproduced detail ; it has a field of its own in whitened country houses ; and perfectly simple restrained design can be cultivated without much difficulty in such cases. Room is being made for this teaching in ecclesiastical work, but there it threatens an affectation of crudeness and barbarism that tends to defeat its first principles.

For *beauty* as an element in a building, detail from such craftsmen as the figure-carver and metal-worker is requisitioned, the architect merely modelling his walls suitably to his abstract ideas of mass and scale—if he has any. In the illustration of such work even architectural draughtsmanship is discounted, and the most sketchy method is deemed the best, for the purpose of emphasising that the building is more than the drawing. Texture of surface, beauty of material, and what may be called personal detail, are essential to success, and it is hoped that with these qualities architecture, as she is taught, can be dispensed with.

The application of these principles to a student's design is of course an anomaly; a student's design should not exist. The building only is architecture in its material and craftsmanship.

The appearance of a group of four designs in this competition more or less based upon these general ideas is a matter of some importance; they are by "The Itinerant Architect," "Lohengrin," "Olive Green," and, with some partial qualification, "Swan."

Of these, the first named is the most important, and expresses with considerable ability the principles of the new school. The drawings are sketchy, but evidence reserve of power, and have directness of line. Detail is abnegated architecturally; beauty of form is confined to figure panels combining between the windows to band the design together; a primitive colonnade is formed of shafts dividing upper windows; shallow projections give vertical emphasis and some sense of surface; while the whole outline is kept in subdued masses without cornice or change of line. The roof is flat, as is also the ceiling; the interior is well thought out, and the organ frontage and internal scheme for decoration would make the hall one of the best in the series.

The success of this design as a building is rightly intended to depend upon its mass, but material would be nearly as important an element in its success. What could this be in London? Stock brick is beautiful where it is appropriate; here it would not be. I can only imagine a suggestion and offer it seriously to the talented author of this design, that the whole should be banded in black and white glazed brick in about the proportions of the use of black and white marble in Florentine buildings, and that the panels of ornament should be of coloured ceramic ware.

"Lohengrin" attempts to follow the same doctrine, but with less success and comprehension of its purport. St. Mark's, Venice, the interior of which is a Mecca for architects, unfortunately possesses external dome roofs of wonderful quaintness, but of no architectural or doctrinal connection with the purity of its interior. Mr. Ruskin had to shut his eyes to them when contemplating the façade. But they have inconsiderately invaded the imagination of "Lohengrin," and his ogee roof cases are really contrary to his faith. This set of drawings is characterised by other affectations, as the elevations are inked-in freehand, and that without gain of feeling or correctness.

"Olive Green" employs some current forms for mouldings and cornices, but has originality and success in his groupings; the decorative details, however, are bad, and in a case where it is the more essential that they should be good. The student should rather leave out carved ornament than put it in badly.

"Swan" is broad and original, and with a proper consideration of the case employs definite Renaissance detail which is good of its sort for the portico annexe; the central grouping of columns is, however, a mistake. The general proportions, which are not practically illustrated by a perspective from too high a point of sight, are free from architectural connection, and the portico has a too detached appearance. It might have afforded a good foil if the building had been in the same key, but that would have committed the author to architecture which generally was to be avoided.

The TITE PRIZE is won by "Red Rose" with a design modest in size—perhaps even small, but illustrated in powerful drawings. It is, perhaps, a question whether lofty proportions are not lost in so small an interior, and whether the emphasis of vertical lines is valuable below a dome. Free Classic, later Renaissance, restrained Spanish, and similar terms will convey the position that the author holds as to style. It is doubtful Italian. But Italian travel to Mr. Fulton will be fruitful of reward.

"Memoria" has a largeness of feeling, spaciousness of proportion, and completeness of plan that make the design notable. The obelisks have an altogether appropriate suggestiveness, and are truly original. Attention should be given to the details of this design—I think the best submitted this year.

"Petronius," "Memento mori," "Imperial" and "En Avant," all show more or less original dome treatments, and worthily compete with each other in partial developments of the fascinating study of dome design.

"Rex" has drawn pleasant inspiration from the early Italian Renaissance masters, as from Bramante's Santa Maria delle Grazie at Milan (of which an interesting sketch by the late Professor Hayter Lewis hangs in this room), and from Brunelleschi's chapel in the cloisters of Santa Croce at Florence.

"Endeavour" has resorted to the early classical tradition, derived from the mausoleum at Halicarnassus, and has treated it in a modern and somewhat economical way, shown in successful drawings.

The GRISSELL MEDAL competition is adequate to its interesting subject of a Fruit Market for a small town. The successful design by "Simplex" possesses in addition to its constructional faces, some architectural appropriateness. It is to be regretted that the design by "Artichoke," which has a very pleasant and English idea of the subject, should be without sufficient constructive quality.

The DRAWINGS MEDAL has been awarded in a way that will indicate to students the vast importance of having a fine subject. The north porch of St. Paul's lends itself admirably to fine draughtsmanship. Fine draughtsmanship with fine design are irresistible at the Institute. St. Catharine's, Cambridge, is an excellent survey soundly worked out, carefully shown, of a most interesting building which places the whole profession under a debt of gratitude to the surveyor. Southwold Church has been beautifully illustrated in fine line Gothic drawings. St. Michael's, Linsithgow, is a work of the same class, while Moreton and Riddlesden Halls are interesting surveys.

For the PUGIN STUDENTSHIP there has been a remarkably fine competition this year; it is awarded to an omnibus collection of Gothic studies, mostly English: glass, decorated screens, inked-in sketches, and measured drawings. A second award has been given to a magnificent set of drawings of the north and west porches of Chartres Cathedral; while a well-known name marks an interesting set of drawings of the church at Norrey, near Caen, St. Ouen, at Rouen, and the Hotel de Valois, Caen.

For the OWEN-JONES competition a fine set of archæological studies has been sent in, comprising mosaics of the Cappella Palatina, drawings of S. Maria dei Miracoli, Venice, S. Anastasia, Verona, and of some screen-work at Southwold. The colour is archaic, the mosaic and pavement design is interesting, the fresco hangings are faded, the stained-glass colour needs the light, and the heraldic colour has other meanings. But the Owen-Jones Studentship is for the study of colour as colour, not merely for the accidentals of a pavement and stained-glass composition.

The sketches hanging in the room exhibited by the Aldwinckle Student of last year, Mr. Fulton, deserve careful attention—there is a singular decorative quality in his work, and a peculiar force of line and of grouping with a view to pictorial effect which should be noted. Whether this is an altogether satisfactory method of architectural study one cannot well say; but there can be little doubt as to the eventual success of a student who has produced these studies.

Mr. De Gruchy's Pugin drawings are worthy of attention, as they indicate a strong development in the direction of freedom by a student whose work has been marked by closeness and accuracy of study heretofore.

Mr. Lee's Tite studies are also to be commended.

NOTE ON THE PLANNING OF CONCERT-ROOMS,

WITH REFERENCE TO THE SUBJECT SET FOR THE SOANE MEDALLION.

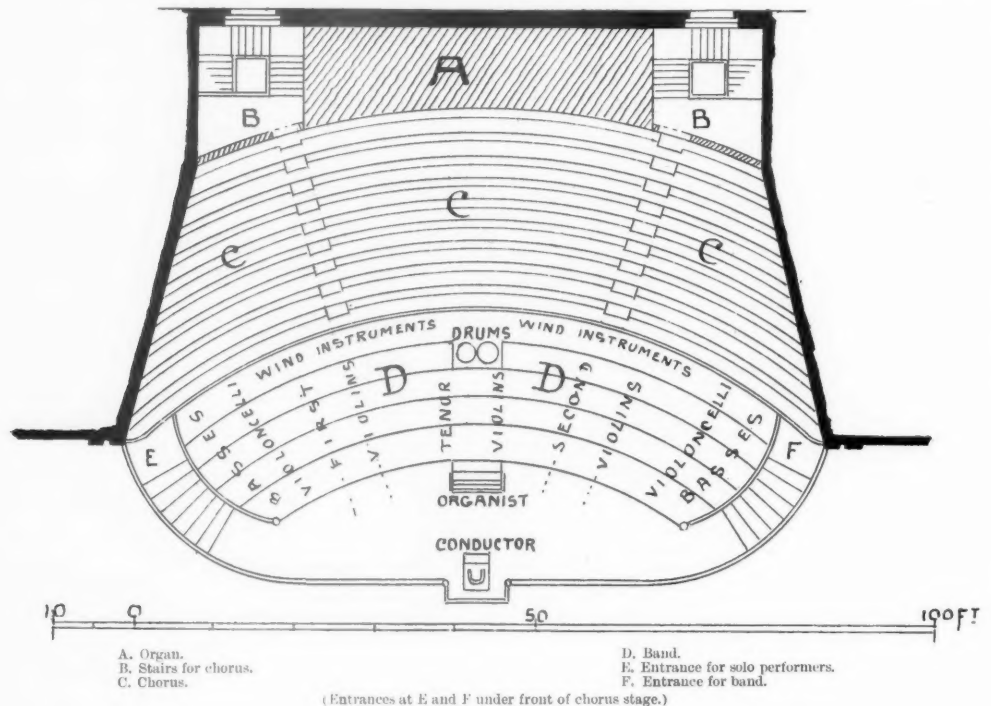
By H. HEATHCOTE STATHAM [*F.*].

IN connection with the subject of the Soane Medallion, I propose to offer a few practical suggestions in regard to the planning of concert-rooms, more especially in respect to the organ and orchestra. But in the first place I would call attention to two points in regard to the general construction of concert-rooms. Where it is intended that such a room should be also available for balls or receptions, a flat floor is of course a necessity; but, for a room which is to be used as a concert-room only, the main floor should always be formed with a gradual slope upwards from front to back. A perfectly flat floor is always a bad position for hearing the performers who are on a raised platform. There has been no concert-room in London so good for hearing band and choral music on a large scale as the old Exeter Hall, where the line of seating was carried upwards in one unbroken slope to the back of the hall. Wagner adopted the same method in his Bayreuth theatre, which, though not a beautiful building architecturally, is a very practical one. Secondly, it should be borne in mind that all expanses of smooth, unbroken wall-surface, whether at the sides or end of the room, whether straight or curved on plan, are undesirable, as tending to produce a disturbing echo. The object in a concert-room is that the sound as first produced should reach the ears of the hearers with as little impediment as possible, but that, once heard, it should not be reflected back to them again. Wall-spaces behind or at the side of the audience, therefore, should be architecturally treated so as to be broken up into facets, and thus to break up and distribute the echo in different directions, instead of permitting it to concentrate. This is especially the case in regard to the end wall of the room, which if left flat will send back a very decided echo; while if built on a general curved plan it will be likely to focus an echo at the point which forms the centre of the curve.

To come now to the question of the orchestra and the organ. I observe that in the plan to which the Medal has been awarded, the seats for the chorus are shown arranged in straight lines at right angles to the axis of the house. That is a mistake. The usual arrangement of the seats in a segment of a circle is done for practical reasons. In the first place, it is desirable that the chorus-singers should stand so as all to look towards the conductor, so that they can see the movement of his baton by merely raising their eyes from the music, without turning the head. Secondly, it is desirable that the one side of the chorus should be able to hear the other side, which is impossible if they are all placed in a straight line—those at one side will then only hear themselves and their near neighbours. If the two sides face

partially towards each other they will hear each other, and that is an assistance in keeping time together. It is not necessary or desirable that the curve should be developed, as it occasionally has been, to a semicircle—in that case, part of the singers will not be singing sufficiently towards the audience; a segment of a circle meets all requirements best.

In more than one of the plans submitted, the band is provided for on a level space at the foot of the chorus seats. That would never do; the players at the back would not properly see the conductor, nor would he have sufficient control over them, nor would the instruments placed at the back be sufficiently heard by the audience. The band require to be raised on successive steps, like the chorus; but not of quite the same section. The chorus require 2 feet 6 inches width for each rank, from back to front, and a rise of about 1 foot 3 inches in



each step, so that each rank may sing over the heads of those in front of them. The band steps should be considerably wider—say 3 feet 2 inches—and do not require so high a rise; we may say 8 inches rise for the lowest step, and 2 inches added to the rise for each successive step. The greater width is necessary because the bulk of the band are string-players, who require space to move their arms and their bows.

I have given here an imaginary plan of an orchestra for a concert-room of large size, arranged for a band of about one hundred (the numbers of the band vary a little, as extra instruments are sometimes required which are not ordinarily wanted), and for a chorus of 400. The side walls are shown expanding from back to front, which should always be done in one way or another. They may be on a concave plan or a convex plan, or (as here) in straight lines; but they should always expand towards the auditorium. The space for the

band might have been provided with one step less, and making it the same width as the chorus stage; but it is better not to expand the band too much laterally, as the basses in a large band are nearly always divided and placed at opposite sides, and as they have nevertheless to play together they must not be separated by too great a distance. It would perhaps be better in this plan if another step had been added, and the width of the whole further reduced.

The approximate positions of the instruments are indicated on the plan. The basses, or *contrabassi*, and the violoncellos, are usually divided, as indicated, at each side of the orchestra; some conductors prefer to group the violoncellos more in the centre, but the arrangement here indicated is the more usual. The first violins, of which in a band of this size there would be fifteen or sixteen, are grouped to the left of the conductor, the second violins (of equal number) in a corresponding position on his right, and the tenor violins, or *violas*, in the centre. It will thus be seen that the principal portion of the orchestra is occupied by the stringed instruments. The wind instruments, which do not require the same degree of action in playing, take up much less room, and are all ranged on the top tier behind the strings; their average number may be taken as about seventeen, but allowance must be made for three or four more, as occasionally required.* The centre portion of the top tier should be projected out, as shown, to make standing-room for the kettledrums, two large copper bowls about 2 feet 6 inches and 2 feet diameter. Another form of drum (the "bass drum") may be wanted, but not always, and a temporary stand will do for that; but the kettledrums are indispensable, and are always put in the same position, viz., in the centre of the top tier, directly facing the conductor—also for a practical reason, for the sound of the drum is so dominating that if the drummer is the least out of time he sets everyone else wrong; therefore he is put where he has the most intimate relation with the conductor. And as this requirement is invariable, it is best to provide for it specially.

I have shown a dividing rail or fence between band and chorus. This is very seldom done, but it is much better to have such a distinct line of demarcation. It is not well to have a couple of brass instruments, for instance, pushed up into one of the ranks of the chorus and putting the singers out by playing close to their ears; it is better to confine the band to its own quarters, allowing space enough (as is done here) for a little elasticity in numbers. The entrances for the solo performers and the band are shown at E and F respectively. On the plan adopted here it was necessary to have steps down, to get headway under the front of the chorus stage, where the entry is situated. But it may be observed that it is much better, when circumstances admit of it, to have the access from the green-room to the platform entirely level—no steps anywhere; and especially no single step in an unexpected position, a stumble on which might spoil a player's nerve just as he was going before the audience.

Now we come to the important question of the organ. In the first place, none of the Soane competitors except one ("Olive Green") appear to have any notion of the space and height required for a modern concert organ. An organ of the size which is required for the performance of modern music must occupy a space of some 300 square feet, and weighs some twenty tons or upwards (without counting the bellows). It will thus be recognised that the idea that you can hang such an instrument on a wall wherever it is most out of the way is hardly a practical one. Moreover, it must have height enough to allow for a thirty-two-foot pipe above the level of the sound-board on which the pipes stand. It is

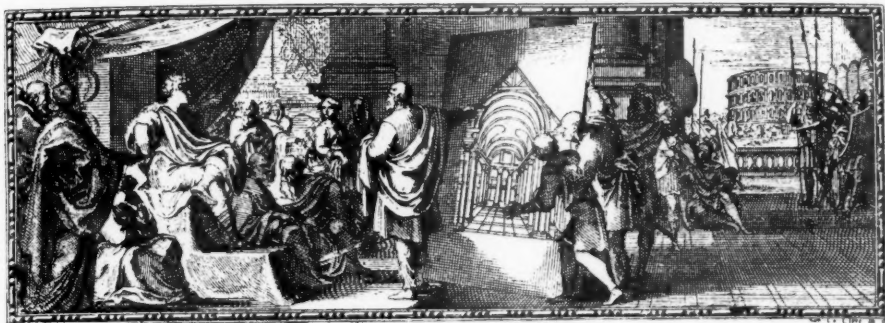
* The average complement of wind instruments to provide for is as follows: two flutes, two oboes, two clarionets, two bassoons, four horns, two trumpets, and three trombones. Occasionally there may be in addition a piccolo flute, a contrabassoon, a tuba, and four trumpets

instead of two. The players of all these require no more than ordinary seat-room side by side, only not so close as to elbow each other; they cannot, for instance, be packed as closely as the chorus-singers.—H.H.S.

only the pedal pipes which run to this height, and where an organ is built from the floor, the pedal sound-board may be placed at a lower level than the others; but where the organ is built out as a projection carried on girders, the thirty-two feet height is a necessity, allowing also three or four feet more for the "action" and the foot or "boot" of the pipe.

The scheme of carrying the organ out overhead has become fashionable lately, but it is anything but good for the effect of the instrument. The Queen's Hall organ, which is essentially a fine one, is ruined in its effect by that position, which in that case may be said to have been only a kind of makeshift to get space out of a totally inadequate orchestra plan. A large organ has far more effect when placed in a low situation and assisted by the resonance of the floor. If, however, the organ is built as a kind of promontory projecting into the chorus seats, there is the disadvantage that the compactness of the chorus is broken into, and the singers on each side of the organ are in a kind of nook by themselves, and not in a position to keep their place properly in the general effect. I consider therefore that the best solution of the problem is that which I have shown in this plan—to place the organ as the backing of the whole orchestra, utilising the space at each side of it for the chorus staircases. These staircases would be covered in immediately above the doorway; the partitions might be architecturally connected with the organ-case design by a cornice run right across, and above that level the sides of the organ would stand free. The bellows, for an organ of this size, should be provided for in a lower story.

One word about the position of the organist. As long as organs could only be played by long wooden slips ("trackers") connecting the key with the wind-valve, it was important to get the player near the organ, to reduce the length of the trackers and their tendency to lengthen and shorten with changes of temperature. But now that pneumatic or electric action can be used there is no excuse for putting the player where he cannot hear the effect of the instrument, and (more especially) where he cannot hear its effect as combining with the band and chorus, when the organ is used to accompany them. In the present day the organ-player ought never to be put at this disadvantage both to himself and others; and I have shown the organ key-board where from henceforth it ought to be—placed in front of the band and facing the conductor's desk, so that the player can hear what he is doing, and can also see the conductor without the aid of a reflector; with the modern resources of mechanism there is no occasion for the player to face the instrument and turn his back on conductor and audience; he can sit facing the hall just as well as the other way, and it is therefore absurd to keep up, from mere habit, a disadvantage of position which is no longer necessary.



DR. USSING ON VITRUVIUS.

DR. USSING'S "Observations" on Vitruvius* contain a re-statement, at greater length and with additional arguments, of a thesis propounded more than half a century ago by Councillor C. F. L. Schultz, a friend and correspondent of Goethe.

The gist of this thesis is that what we know as "*Vitruvius de Architectura*" was not written, as it purports to be, by an architect of that name in the time of Augustus, but is a forgery of a later date. Schultz's pamphlet is not so elaborate in its critical animadversions on Vitruvius as the pamphlet now before us, but in certain respects it is broader and more satisfactory, because less purely negative in its treatment. Schultz does give his readers some intelligible positive theory to account for the phenomena in question, while Dr. Ussing brings forward arguments of many different degrees of value against the orthodox view of the *de Architectura*, without elaborating any counter theory of his own, or even bestowing attention on the points which tell most against his case.

From a writer of Dr. Ussing's position architectural readers will expect something more than this. They are not interested in mere academic controversies, such as those that used to be carried on among scholars of older generations, but, when a question like this of the authenticity of Vitruvius has been raised, they are ready to listen to any level-headed scholar who has investigated it on all sides, and who will present the whole case in a clear and candid manner. They will wish to know, in the first place, how the balance is to be struck after a dispassionate review of the arguments, while, if the balance turns against the received view, they will go on to ask what alternative theory can be set up in its stead. By the "received view" is not meant any exaggerated estimate of the value of the *de Architectura*. The architect of to-day no longer makes a Bible of his Vitruvius, but on the contrary tends to depreciate him unduly; and an attempt was made in the *JOURNAL* of 1893 (Vol. IX. N.S. p. 353 ff.) to discover how much there was of genuine actuality and interest in the famous treatise. It appeared then that there was a great deal in Vitruvius that was hardly in place in an architectural work, or was historically valueless; but that there was on the other hand a large amount of technical and historical matter of the highest importance, which the modern architect could not afford to ignore. When and by whom this matter was put together is a question of practical moment, and on this Dr. Ussing does not give us all the assistance we should desire.

* *Observations on Vitruvii de Architectura Libri Decem*, with special regard to the time at which this work was written, by J. L. Ussing, Ph.D., LL.D. [*Hon. Corr. M.*],

late Professor of Greek and Latin in the University of Copenhagen. 4o. Lond. 1898. [R.I.B.A., 9, Conduit Street.]

In the opening pages of the pamphlet we are told, in words which perhaps say a little more than the writer means, that Schultz's observations "were so conclusive that no further evidence was needed" (p. 2), and that "he has done enough to decide the question." Schultz's view may be summed up as follows.* The *de Architectura* is, according to him, a compilation out of various fragments made about the time of the Emperor Theodosius, that is, in the latter part of the fourth century A.D. These fragments were for the most part Greek, and were translated into Latin by the compiler, who had no proper comprehension either of the matter or the language. At a subsequent date the name "Vitruvius" was attached to the matter thus collected, while at a final stage the work was put into its present form about the tenth century, probably by Gerbert, Archbishop of Cologne. The name "Vitruvius," Schultz says, was known and honoured as that of a practical architect and engineer of repute in the early days of the Empire. Such a practitioner is mentioned by Frontinus at the end of the first century A.D., and by Servius and Sidonius Apollinaris at later dates, but in the fourth century little save his name was known about him, and it was accordingly possible for this name to be annexed for the benefit of the compilation, which thus received a *cachet* of age as well as of authority. If it is asked: What about Pliny's mention and use of Vitruvius and the *de Architectura*? Schultz has the following reply: He was clear-sighted enough to discern the force of the evidence for the genuineness of Vitruvius arising from the fact that a certain part of Pliny's *Natural History* is almost exactly the same as parts of the *de Architectura*, while Pliny mentions "Vitruvius" as one of the authors from whom he drew the matter of his work; but he got over the difficulty by adopting a suggestion, current at his time, that the sections in Pliny where these sources are mentioned were not genuine.

Such is in brief the theory of Councillor Schultz, and Dr. Ussing has now modified it by giving up the suggested tenth-century epoch, which the date of existing manuscripts shows to be impossible, while he agrees in assigning the period of about the fourth century A.D. for the substantial fabric of the work. This he believes to have been made up principally from the Latin writer Varro, who belongs to the last age of the Republic, by some one who "was no real architect, only a man who took an interest in architecture and kindred branches, who had read something about these matters, and now fancied himself to be a wise man and able to teach others" (p. 13). The various arguments used in support of this thesis need not yet be followed in detail, because there are certain broad preliminary questions which must be faced. Here are one or two of these:—

Dr. Ussing accepts as genuine the notices in Pliny that make "Vitruvius" one of his sources. The importance of this is that the real Vitruvius is proved by Pliny's reference to have been a writer, *auctor*, whereas Schultz, on the evidence of Frontinus, had held this real Vitruvius to have been a practical man and not a writer at all. "Pliny," writes Dr. Ussing, "knows an author of the name of Vitruvius. . . . The question is whether this is the same Vitruvius as ours" (p. 20). The above sentence is an illustration of what cannot but be regarded as a defective method of treatment in the pamphlet. The writer gives no sign that he realises the importance of this question, and the enormous difficulty which here confronts anyone who argues that our Vitruvius is a forgery. Pliny cites a writer "Vitruvius," and his *Natural History* contains matter which we also find in our Vitruvius. Dr. Ussing apparently wishes us to believe that Pliny did use, somewhere in his work, the writings of a Vitruvius, but that these writings themselves have perished without leaving a

* Schultz's essay is published as an appendix to a volume of correspondence between him and Goethe [*Briefwechsel zwischen Goethe und Staatsrath Schultz*,

Leipzig, 1852-6], and it is commented on unfavourably in the preface and notes to F. von Reber's German translation of Vitruvius, Stuttgart, 1865.

trace, while our Vitruvius—that is, the fourth-century one—at a later date annexed some of Pliny's matter, and so brought about the resemblance. Now it is clear that, as Schultz admitted, the borrowing of the name "Vitruvius" for the compilation of the fourth century showed that it was a known and honoured one, while Pliny tells us that there were writings connected with this name. Dr. Ussing's view assumes that these writings, although the writings of a man of lasting repute, perished absolutely without leaving a trace in the interval between the age of Augustus and that of Theodosius. What political, social, or literary reason can be alleged for such a phenomenon? There were Greek and Latin libraries at Rome on the Palatine, in the Forum of Trajan, and in other parts of the city, and these institutions increased so in numbers as time went on that we are informed in the *Notitia* of the fourth century that Rome contained at that time no fewer than twenty-eight (Jordan, *Topographie der Stadt Rom*, II. 181).

If the real Vitruvius of the days of Augustus had left writings we may be sure that copies would have been safe in these collections, and in that case such an impudent piece of forgery as that postulated could not have been carried through with success. On page 29 it is admitted that Servius, at the end of the fourth century, had either read the "more ancient genuine author of this name" (Vitruvius), or had access to quotations from him. If the real Vitruvius was known in either of these ways, the borrowing at about this period of the "older well-known name" (p. 42) for a supposititious work would have been a very hazardous experiment. It must be borne in mind that the literary life of Rome had been unbroken during the Imperial period. No cataclysm had yet occurred to make a break in the traditions of culture, and the loss of any Augustan writer of importance cannot be assumed without doing violence to common sense. Schultz was more canny when he suggested that the name "Vitruvius" was not claimed by the compiler of the fourth century, but became attached later on to the treatise in the really Dark Ages that followed on Alaric's sack of Rome in the beginning of the fifth.

Another general argument of very great force in favour of the authenticity of the *de Architectura*, is the fact that Roman Imperial architecture, as evidenced in the monuments from the time of Augustus downwards, has left no trace of itself in the treatise. Oddly enough, Dr. Ussing uses this fact as one of his arguments *against* the authenticity of Vitruvius. The buildings mentioned in the ten books seem as a rule, he points out (pp. 12, 13), to be of the time of the Republic or the very beginning of the Empire; and in his final summary (p. 42) he says, "It is incomprehensible that a Roman who wrote about architecture at the time of Augustus did not allude with a single word to the marvels of architecture constructed at that period, and that if he wanted illustrations he did not choose them among the works that were known and admired by everybody, instead of referring to buildings from the time of the Republic."

The most obvious explanation of this phenomenon is that which any reader can derive from Vitruvius's own words in the exordium to his book, translated and commented on, perhaps rather hypercritically, by Dr. Ussing on page 9 of his pamphlet. Vitruvius writes there as if he had had his treatise substantially prepared some time before its actual publication, but had withheld it till the stormy period of his patron's life was over—"I did not venture, in the midst of such grave business, to come forward with my work about architecture, which I had executed with great efforts of thought," &c. (Vit. trans. by Ussing, p. 9, note). Assuming the *bona fides* of those personal indications about the author scattered up and down the *de Architectura*, we should see in Vitruvius a man belonging essentially to the old order of things, one "who stood still and looked rather back than forward" (JOURNAL,

vol. ix. N.S. p. 362), and had no interest in the new departure in architectural matters of the first age of the Empire. Dr. Ussing explains the matter, however, in a different fashion. He believes that the writer of the treatise *De Architectura*—or, as we may conveniently call him, pseudo-Vitruvius—living about the fourth century, modelled his book “on a work which was written before the reign of Augustus” (p. 42). We do not know exactly what process Dr. Ussing understands by the words “modelled on,” but his theory seems to involve the following dilemma. If the ten books consist in the main in a transcript from a work of the Republican period, what becomes of the argument from language relied on in the early part of the pamphlet? Surely, on the hypothesis of a transcript, the language as well as the matter would be of the Republican time. If, on the other hand, pseudo-Vitruvius only worked up the old material into a new form and expressed it in his own language, how does he manage to avoid revealing “with a single word” his knowledge of all the structures and processes of the Imperial period? And, furthermore, how does he succeed in writing long passages about technical processes of work in plaster and other materials without betraying his amateur status? It is to be noted that Schultz cleverly evaded this dilemma by making the authorities used by pseudo-Vitruvius *Greek* and not *Latin*, so that the matter would remain old while the language of the translator was modern. The form in which Dr. Ussing has cast his hypothesis makes it more difficult to sustain; and we are forced here to try and figure to ourselves in some intelligible fashion what sort of a person this pseudo-Vitruvius can have been. Dr. Ussing has touched off his portrait in a few not very flattering phrases. He is “a shallow-minded, ignorant man” (p. 1); an “impostor” (p. 11); “no real architect, but confessedly an amateur who had read some books about these matters, and therefore considered himself called upon to teach others” (p. 42); and, on the showing of Schultz, “an ignorant humbug” (p. 2), and “neither a real architect nor a technical expert, but a closet philosopher” (p. 3). On the other hand, he is admitted to be “an ancient author, though not from the time specially designated as classical; a man who had seen a good deal we cannot see; and, above all, a man who had sources which we have not” (p. 1); while “it is by no means impossible that he may have had something to do with the construction of catapults and similar engines of war—not for Caesar and Augustus, but some centuries later” (p. 41). Such a man proceeds, in the time, perhaps, of Constantine or one of his immediate successors, to write a “manual about his profession,” for the sake of teaching others (p. 13), and takes cunning measures to make it succeed, so that it might be “seized upon with avidity, and its publication might prove a lucrative business” (p. 42). In furtherance of this laudable intention he takes out his Varro, and indites from this authority a compendium of architecture in which nothing about the building art is allowed to appear that could have any practical interest for the men of his own time. These men, of course, possessed their own copies of Varro, and if they desired antiquarian knowledge as to old processes of Roman building, they could turn to these or look out the rolls of this author in the numerous public libraries. They would not be very likely to seize with avidity on a *réchauffé* of this matter of wholly bygone interest, especially when its real source, as well as the device by which “Vitruvian” authority was being claimed for it, were perfectly patent to the public gaze. Such a production would have been laughed out of existence as soon as it appeared, instead of being handed down in so many copies that at the time of the Carolingian Renaissance it was one of the most prominent items of classical literature. It must be remembered that at the supposed epoch of pseudo-Vitruvius there was renewed activity in the building arts, owing to the foundation of the new capital at Byzantium. Constantine encouraged architects, of whom, in one of his latest edicts, he says “there is great need” (*decreta*, ed. Migne, p. 381); and a writer of the time who wished for success would

have put some actuality into his work by dealing with the monuments and processes which really belonged to the epoch. Imagine a compendium of architecture for use in the fourth century which makes no mention of vault construction or the use of concrete on a large scale, or of veneering brick or rubble structures with marble slabs, or again of such all-important edifices as the great *thermæ* that were being erected till the later age of the Empire. If pseudo-Vitruvius "had seen a good deal we cannot see," he makes singularly little use for the benefit of posterity of the advantage he enjoyed.

The argument of Dr. Ussing that we are here examining may thus be seen to turn against himself. If it is remarkable that an Augustan writer should say nothing about Roman Imperial architecture, it would be simply a portent in a writer of the fourth century, unless he had a particular intention of keeping silence. That there can have been no such intention, but on the contrary a strong motive in the other direction, we have just seen. To sum up then. If the writer in question gave a sort of transcript of Varro, or any other Latin writer of repute of the last age of the Republic, three things would have happened: first, he would have been found out; secondly, he would have defeated the only intelligible object of his book; thirdly, he would have written early Latin. If, on the other hand, he had some independence in his writing, he must have managed with extraordinary cleverness to avoid letting out what he and everyone else at his time must have known about Roman buildings, and to have carried through technical descriptions, like some of those in the seventh book, without betraying himself as a closet philosopher. Everyone knows how difficult it would be for a mere ignorant amateur to avoid doing this.

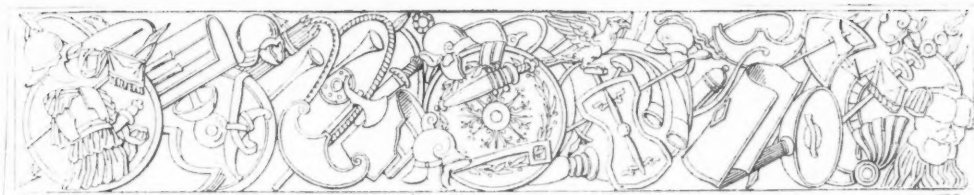
The perfect impossibility of this creature of a dream—the supposed pseudo-Vitruvius of the fourth century—does not, however, make the figure of our old friend the Augustan Vitruvius an easy one to understand. All must here acknowledge with gratitude the valuable work which Dr. Ussing has accomplished in his pamphlet for Vitruvian criticism. If in this review his points have not been taken up formally one by one, it is because, as has been explained, there seemed to be larger questions of a more general bearing which had to be faced before time could be profitably spent on minor arguments. It is proper to say here that these arguments have been taken into consideration and due weight given to them, though there is not space to enter into any detailed discussion. Many of these arguments are drawn from mistakes, omissions, confusions, inconsequences, of which the author of the *de Architectura* is undoubtedly guilty. It is obvious that only those cases are available for the support of the thesis in which the particular sin is more likely to have been committed in the fourth century A.D. than before the first. If "everybody" called the first Emperor "Augustus," [though Horace did not always do it (p. 10)], why does not pseudo-Vitruvius use the term? If "it is altogether impossible that a man who has served under Cæsar could have given a description of the siege of Massilia which is quite contradictory to the detailed report given about this event by Cæsar himself" (p. 41), there would be the same impossibility in the case of a later writer, who had, like every Roman, Cæsar's Commentaries easily accessible, if not in the very closet where he philosophised. On grounds like these some of Dr. Ussing's arguments may be discounted, but there remain several that have undoubted value, though there is no one of them that is, as the Germans say, "*schlagend*"—carrying on its very face an impression of its force. What is meant by such an argument may be illustrated incidentally from the pamphlet before us. For fixing the date of Athenæus in the Roman Imperial period, the writer refers (p. 30) to one of his expressions, "*the excellent laws of the Empire.*" It need hardly be said that Athenæus, who wrote in Greek, did not use the word "*Empire*," but the term actually employed; *ὑπερνομία* is the technical Greek equivalent, and is so suggestive of a reference to Rome that one

accepts it at once as going a very long way towards proving the Roman date of the *περὶ μηχανημάτων*. It cannot be said that there is any one of the arguments in favour of a late date for Vitruvius that comes home to the mind with anything like this same convincing force. Singly, many have their point, and the cumulative effect of them is not to be ignored; but they hardly weigh in the balance against the broader considerations upon the other side, some of which have now been indicated. The arguments from language are in some cases striking, but, on grounds admitted on pages 2 and 8, not by any means conclusive. On the question of style one may be allowed to say that the passage quoted on page 9 does not seem fairly describable as "coarse and out of taste." Vitruvius does not write with the terseness and elegance of Horace, but what he says seems under the circumstances natural enough, while the imperfect tense, which, in the note on page 10, is said to have "scarcely any sense," is, on the interpretation of the passage given above, exactly in place. The criticism of Vitruvius's account of the Greek theatre on page 17 has its edge turned by a recent paper in the German Archaeological Institute's *Athenische Mittheilungen* 1897, in which Dr. Dörpfeld, on the ground of new observations, justifies Vitruvius even at the expense of his own theory detailed in his book on the subject. That Servius quotes from "Vitruvius" a passage not found in the *de Architectura* is certainly a puzzling fact.

Dr. Ussing may fairly claim that all his arguments should be discussed *seriatim* before a judgment is pronounced on his thesis, and, in so far as it has been impossible in the present review to accomplish this, the treatment of the subject has been incomplete. On the other hand, a dispassionate investigator might hesitate to embark on an elaborate examination of details so long as such obvious difficulties as those referred to above have not been fairly met and grappled with. In any case, Dr. Ussing's work will always retain a very high value for Vitruvian students, on account of the searching criticism to which he has subjected this interesting but very puzzling ancient writer.

G. BALDWIN BROWN.

Edinburgh.



SOME OLD ITALIAN BUILDING ACCOUNTS.

By WILLIAM SCOTT,

Qualified as Associate 1870, Silver Medallist 1875, Soane Medallist 1877, R.A. Travelling Student 1878.

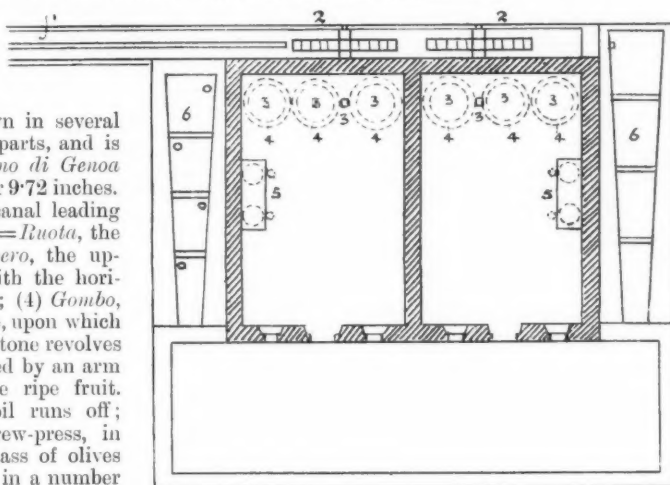
(Continued from p. 249, Vol. V. Third Series.)

IN these old documents are found so many references to the *defisi*, the oil-mills, that it may be worth while to give a plan copied from a document of S. Biaggio, accompanying an application for the right to take water from the torrent to work the mill. I have added reference numbers for the sake of explanation, and so the various features will be made clear. The original plan, here reproduced, is drawn in several colours, indicating the several parts, and is to a scale of *Palmi*; the *Palmo di Genoa* being equal to 25 centimetres, or 9·72 inches.

(1) *Bearo* or *Beale*, a small canal leading the water on to the (2) *Roda*=*Ruota*, the water-wheel; (3) *Arboro*=*Albero*, the upright shaft or axis connected with the horizontal shaft *Pallajo* or *Travo*; (4) *Gombo*, the lower or "nether" millstone, upon which the *Mora*=*Molla* or upper millstone revolves in a vertical plane, being moved by an arm on the shaft, and crushes the ripe fruit. From this *gombo* the first oil runs off; (5) *Destrento*=*Torchio* or screw-press, in which the *pasta* or crushed mass of olives taken from the *gombo*, packed in a number of *sportini*, small circular bags made of rushes, is pressed to get the second lot of oil; (6) *Laghi*, small vats, at different levels, where the already crushed and pressed *pasta* is washed to give a further yield of oil. Sometimes there is, in addition, a *Pairolo* or boiler, where the *pasta* undergoes yet another operation; and modern science has taught that fermentation may also be used to increase the yield. Even after all these processes, the refuse is very useful for fuel.

Most of the mills are still constructed and worked in precisely the same way as they were hundreds of years ago, and the same technical terms are used. The mill itself, that is, the mechanical portion, is called a *Frantojo*, and the *Frantojani* or constructors—a special class of

workmen—are well paid for their labour; while in such an autumn as the present one, for instance, when the *annata* or year's yield promises to be exceptionally good, they are almost overwhelmed with commissions.



SCALE OF 0 10 20 30 40 50 PALMI.
PLAN OF OIL MILL.

Among other account-book entries which refer to details of construction and their cost, &c., we have:—

p. fare serchare uno instrumento di quando mr simone iurberto ha venduto lo defisio* ha maestro lucha he esso un strumēto del 1593 nelli acti di mr pele-

For searching for a deed (document) by which (lit. when) maestro Simone Amalberto sold the mill* to maestro Luca; it is a deed of 1593, among the

* That is, a half share, see p. 250, Vol. V.

grino maccario spesso soldi
quatro £0 4 0

p fare tirare un arboreto
allo defisio p li homini cioè
quindici ha soldi diexe per
homo vale £7 10 0
ha maestro bernardino
per sua manifattura dello ar-
boreto cō suo figlio dato lire
sei dico £6 0 0

Then in 1662 is another entry:—

per ciodi da rovere et 100
da barcha vecchia* £4 0 0
per andarli a comprare
£0 8 0
per drissare li ciodi vecchi
£0 6 0
per l' arboreto† £21 1 0
per una giornata per far
abasar larboro et martelar
il gombo £1 0 0
per un travo £0 6 0
per 8 denti £0 6 0

And in 1689:—

per fare ha comodare il
defisio de Università‡ di roda
albero copiciavaxine§ cercio
altinelo et Maistranza di
ogni cosa e giornate d'ho-
mini per spesa di lie (lire)
47, sodi 10

Besides S. Biaggio and Soldano, there is in the
same valley another village, Vallecrosia, con-
serving documents of interest. Here the influ-
ence of the priests may again be traced, at least
as much as elsewhere, in the direction of obtain-
ing the expenditure of public money for their own
purposes. In 1652 is entered:—

Al Rev^{do} Rettore p. ac-
conciare la canonica
£5 0 0

To the Rev. the Rector
for repairing the Canon's
residence £5 0 0

But three years later a more important work
was decided on; and the accounts include a
regular contract with a builder to construct a new
Canon's residence:—

E statto deliberata p.
fabricare la casa Canoniale
in publica collega p. Pietro
curto e Bartolomeo aprosio
Consoli con conseglio con-

It has been resolved in
public assembly by Pietro
Curto and Bartolomeo Apro-
sio, consuls, with the
advice, consent, and inter-

* *Da barcha vecchia* (lit. old boat) is a familiar but
very curious *patois* term, the origin of which seems to be
quite unknown. It signifies a nail with a very large head,
and in explaining to me the sort of nail indicated by this
term I was told they were "such as are seen on the cruci-
fix (!)" I have chosen what I thought the nearest English
equivalent, but should be glad of any suggestions tending
to throw light on the subject.—W. S.

† Lit. tree, but it doubtless means the tree as wrought
into a shaft.

‡ See Vol. V. p. 250.

§ The meaning is uncertain; in this case it probably
refers to small pieces of ironwork, but it might mean the
repositories for the refuse.

deeds of maestro Pelegriño
Maccario; spent four soldi
£0 4 0

For bringing a tree to the
mill, for the men, that is,
fifteen at ten soldi per man
amounts to £7 10 0

To maestro Bernardino
for his labour on the tree,
with his son, given six lire
£6 0 0

For nails for oak and 100
spikes* £4 0 0

For going to buy them
£0 8 0

For straightening the old
nails £0 6 0

For the shaft † £21 0 0
For a day's work in
lowering the shaft and
hammer-dressing (or level-
ling) the mill-stone £1 0 0

For a beam (?) £0 6 0

For 8 teeth (for a wheel)
£0 6 0

For repairing the mill of
the Università‡ with a
wheel, shaft, wheel-float-
boards, *ciavavine*§ iron
hoop to the bucket, and the
labour for each item, and
men's time to the cost of
lire 47, soldi 10

senso et intervento de cinq
desei ufficiali . . . (here
follow their names) . . .
e dⁿⁱ ufficiali l' hanno deli-
berata a Pietro Maria
Cassino sotto li patti modi e
forme e conditioni, come di
sotto in lib. (lire) £276 cioè
ched^{te} Cassino sia obligato
metergli a sue spezze
mattoni per la volta due
millia osia tanti tovi || che
faccino d^{to} lavoro fabricare
la muraglia verso monte
un palmo e mezzo con suo
fondamento d' incima in
fondo, fare sua volta ad^{ta}
Cassa alta nel mezzo palmi
19 cō sue scale e bancheti. ¶
alsare tutte le muraglie dal
battume sino alli travi dieci
palmi, fare suoi spiggi, sua
tromba,** dare suo battume,
et infrancarla di greggio,
coprire d^{ta} Cassa, e cōprare
coppi se vi mancheràno p.
coprirla, le taole del tetto
quelle che vi sono metterle
spezze, se vi mancheràno
metterle l' una da l'altra due
o tre ditta, et àcōra mettere
asue spezze ogni sorte di
legnami che faràno di
bissogno p. d^{ta} fabrica e
darla finita di greggio con
cond^{te} che fra messi tre sia
fornita e se nō sarà fornita
d^{te} Cassino debba pagare a
sue spezze la pigione al
Curato eq^{to} in presenza di
fra^{co} Aprosio p. Bartolameo
e di fra^{co} Aprosio d' Ant^{co}
testimonij e di me deputato
(signed) Gio Agos^{to}
Aprosio deputato

vention of five out of the
six officials (councillors)
. . . to build the Canon's
residence; and the said
officials have voted it (the
house) to Pietro Maria
Cassino under the contract,
ways, forms, and condi-
tions as [indicated] below
at 276 lire, that is, that the
said Cassino be bound to
supply at his own cost
bricks for the vault No.
2000, or as many *tovi* || as
are necessary for the said
work; to build the wall (on
the side) towards the hill
1½ palms [thick] from top
to bottom, with its founda-
tion; to construct the
vaulting to the said house
19 palms high in the
middle, with its stairs and
treads ¶; to raise (carry up)
all the walls (to a height
of) ten palms from the floor
to the beams, form its angles
(arises), its space under
the stairway,** provide
its pavement, and roughly
plaster it (the house); to
cover the said house and
buy tiles, if any are want-
ing, for covering it: the
boards of the roof which
here are must be placed
close together, or if they be
insufficient lay them two or
three fingers' width apart;
and besides provide at his
own cost every kind of
timber that may be neces-
sary for the said building,
and give it over finished in
the rough, with the condi-
tion that it be given over
within three months; and
if it be not so given over
the said Cassino shall pay
at his own cost the rent of
the curate; and this in
the presence of Francesco
Aprosio, son of Bartolomeo,
and of Francesco Aprosio,
son of Antonio, witnesses,
and of myself, a deputy.
(Signed, &c.)

This expenditure for the carcass was followed
by another for the joiners' work:—

1656 li 19 febraro in
Vallecrosia Spezze fatte a
Luca Aprosio Cassiere delib.
per spezze p. taule travetti e
maistranza p. fare porte e
finestre nella Casa Canonil-

1656, February 19, in
Vallecrosia. Payment made
by Luca Aprosio, Treasurer
[according to] resolution:
By payment for boards,
scantlings, and workman-

|| *Tovi* = small blocks of light spongy tufa, used instead
of bricks for making the vaulting.

* A curious idiomatic expression still used, the word
banchetto meaning also a seat.

** Impossible to translate literally, as *Tromba* means
simply a trumpet.

cale e per due annate al
Canceliere nro rationale

£27 9 0
dico libre vñti sette e
soldi 9 che in tutto d^{li}
spezze sono £190 18 0

ship in making doors and
windows for the Canon's
residence, and for two
years' [salary] to the clerk
our accountant £27 9 0
Say twenty-seven *lire*
and nine *soldi*, which pay-
ments altogether amount to
£190 18 0

Note the quaint way of mixing up two sets of
accounts.

For some reason or other this house does not
seem to have satisfied the requirements of the
authorities, as we find in 1659 a resolution de-
claring the necessity for constructing a new Casa
Canonica, and noting the faculty obtained from
the *Magistrato della Comunità* for expending
money to the extent of 50 *scuti argento*, as well
as to *permutare e vendere* the existing residence.
Following on this it is announced that after
mature deliberation the Councillors have deter-
mined, and determine, upon the erection of a new
Canonica, spending to the extent of 200 *lire*
genovese, and attached to their resolution is a
condition that, if there should arise any opposi-
tion to such an expenditure of public money,
fresh provision must be made.

Ready cash not being available, the Treasurer
is furnished with the names of a number of
individuals who are debtors to the Commune, in
sums varying from 12 *lire* to 33 *lire* each, and he
is authorised to summon them before the *Capitano*
at Ventimiglia, and enforce payment of their
debts.

There are several entries of permission given to
private individuals to build against the Town-wall,
or to vault over the space between the same and
their existing houses, for a money payment. As
an example of the latter, in 1683, we are told the
consuls:—

hanno venduto uno ar-
bamento (= arrendamento)
de muraglia de l'università
a Fr^{co} Aproso q. Gio. per il
pretio di lire vinti sei

Have given (lit. sold) a
lease of the wall of the uni-
versity to Francesco Apro-
sio, son of Giovanni, at the
price of twenty-six *lire*.

To this lease was attached the curious con-
dition:—

che debba in ogni occa-
sione di guerra lasciar la
porta aperta accioche le
persone possano intrare e
uscire per difesa di d^{li} luogo
e lasciare ancora le arche-
bugiere pero colla muraglia
sottana . . . &c.

That he shall on every
occasion of war leave the
door open so that persons
may go in and out for the
defence of the said place,
and shall leave the loop-
holes open in the lower
wall . . . &c.

Apricale, an extremely picturesque village at
some distance from these last, furnishes us with a
report by two experts on repairs at the Campanile
in 1747, which shows how works were measured
and valued at that date. After the usual formal
oath, it proceeds to record how the two ex-
perts:—

Doppo aver ben bene e
diligent^e visitate esaminate
e cañate de nove riparazⁿⁱ
hanno riconosciuto esservi
cañe di Muraglia numero
sessanta e speso p. cad^a caña
salm^{te} † una e meza calce
vale lire due, Salmate otto
sabia che p. il porto di essa
si è speso lire una, giornate
due da Mfo da Mfo che a sdi
Trenta il gño sone lire Tre,
servitù di d^{li} mri p. cad^a
caña una lira e cinque, e
finalm^e Tovi ‡ cad^a caña lire
due rilevante in tutto . . . §
cad^a canna a lire nove e
soldi cinque, ed il Totale
di d^{li} cañe a lire cinque
cento cinquanta cin-
que, di corde rubbi
due a lire sette cad^a
rubbo sono £14, di
Ferro p. rondini e
chiavi di essi rj quin-
decia a lire Tre, soldi
sei e den^{ari} otto—sono
lire cinquanta, di
chiodi no. due Milla
di valore lire venti-
sei. La Croce di
ferro esser di valore
di lire quindici, di
tavole Donzine qua-
tro di lire cinque cad^a
donzina, sono lire
venti e Finalm^e es-
servi impiegati travi
n^{re} sei a lire Tre soldi
sei e den^{ari} otto rille^{vi}
lire venti E questo
d^{li} mri da Muro Pi-
sano e Tamagno
riferiscono secondo
la practica e perizia
anno di simili esti-
mazioni, e secondo
Iddio e sua (sic)
conscienza, &c., &c.

£555

£14

£50

£26

£15

£20

£20

£20

£20

£20

£20

£20

£20

£20

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£20

After having well and
diligently visited, examined,
and measured the new re-
pairs, have recognised that
there are No. sixty *cann*e of
walling, and the cost of
each *canna* is—one and a
half loads † of lime, cost two
lire; eight loads of sand,
the carriage of which cost
one *lira*: two days of a
mason, which at thirty
soldi per day are three *lire*;
labourers' help for each
canna, one *lira* five *soldi*;
and finally for Tovi ‡ to
each *canna*, two *lire*;
amounting in all . . . § for
each *canna* to nine *lire* and
five *soldi*, and the total of
the said *cann*e to five hun-
£555 dred and fifty-five

lire. Two *rubbi* of cord

at seven *lire* each

£14 *rub* are £14. Iron

for tie-rods and keys

for the same, 15 *rub*i

at 3 *lire* six *soldi* and

eight *denari* make

£50 fifty *lire*. No. two

thousand nails worth

£26 twenty-six *lire*. The

iron Cross is of the

value of fifteen *lire*.

£15 Four dozen boards

at five *lire* each

£20 dozen make twenty

lire, and finally there

were used No. six

beams at three *lire*

six *soldi* and eight

denari, amounting to

£20 twenty *lire*. And

this the master

masons, Pisano and

Tamagno, report ac-
cording to the ex-
perience and skill
(or knowledge) which
they have in similar
estimates and accord-
ing to God and
their conscience, &c.

£700

£700

£700

£700

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£700

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£700

£700

† *Salmata*, a mule-load.

§ Word indecipherable.

‡ See note, p. 156.

Piu per compra di pietre in canelle no. 8½ a £5 cad' canella.*

Also for purchase of stone in No. 8½ canelle at £5 each canella.*

Another document, without date, but on paper bearing the kind of stamp used at the close of last century, also refers to repairs at the Parish Church, and these may have been rather extensive, as it was found advisable to make a kiln on purpose to burn the lime:—

Notta delle spese fatte dai Sig.^{ri} Sindaci della Comita d'Apricale Gio. Battà Pisano e Gio Battà Viale in vantaggio della Chiesa Parochiale di d' Luogo del denaro bilanciato dall' Ill^{mo} Sig Intend^e nel loro Caosato. Primieramente hanno pagato al Capo Mastro Gio Batt. Cornetto p. aver visitato la Parochia secondo l' ord^e dell' Ill^{mo} Sig Intend^e incluse le spese cibarie

£8 0 0

piu anno pagato ad Ambroggio Cassino mandato dal consiglio di d' Luogo in Nizza p. ottenere la licenza di fare una fornace di Calcina p. riparazione di d' Chiesa incluse le spese della sup^a

£5 8 4

piu anno pagato al Ferraro di Perinaldo p. far aggiustare 3 masse da pietra p. romper le pietre di d' fornace

£5 10 0

piu anno pagato a Mastro Christofa p. aver fatto la volta della d' fornace, ed impiegato giorni sette a cuocerla

£18 0 0

piu anno pagato a quattro uomini che anno fatto li denti † della fornace

£1 0 0

per vino e pane comprato p. dare al mastro et alli uomini che anno assistito a fare la volta sud^a anno speso

£1 10 0

piu per aver comprato rubi 12 di ferro p. fare li rondini e chiavi ad una parte della volta della Chiesa

£33 0 0

piu anno pagato ad un uomo che ha portato li Tilette per farli affigere in Nizza Dolceacqua et altri Luoghi

£2 3 4

Note of the expenditure made by the Signori Sindaci of the Community of Apricale, Gio. Batt. Pisano, and Gio. Batt. Viale, for the benefit of the parish church of the said place, of the money approved by the Most Illustrious Sig. Intendente in their Estimate. First, they have paid to the Master-builder, Gio. Batt. Cornetto, for having examined the parish church according to the order of the Most Illustrious Sig. Intendente, including their expenses for food

£8 0 0

Also they have paid to Ambroggio Cassino, [who was] sent by the Council of the said place to Nice to obtain a license to make a lime-kiln for the repairing of the said church, including the cost of the application (lit. petition)

£5 8 4

Also they have paid to the blacksmith at Perinaldo for putting in order three sledge-hammers for breaking stone for the said furnace

£5 10 0

Also they have paid to Master Christofa for having constructed the vault of the furnace, and employed seven days in firing it

£18 0 0

Also they have paid to four men who made the denti † of the furnace

£1 0 0

For wine and bread bought to give to the mason and to the men who assisted in making the said vault they have spent

£1 10 0

For having bought 12 rubi of iron to make the tie-rods and keys for a part of the vaulting of the church

£33 0 0

Also they have paid to a man who carried the notices to have them put up in Nice, Dolceacqua, and other places

£2 3 4

piu anno pagato a tre uomini per giorni sette che anno assistito a cuocere la Fornace

£6 3 4

per aver comprato due ceste da far tirar le pietre piccole e due maniche p. le masse da pietra anno speso

£1 7 0

piu anno speso per una quarta ‡ nissolle rotte regalate al Sig^{ro} Conte Selarandi p. esservi portato col Sig^{ro} Ingegniere Gavella alla visita della Chiesa sud^a

£5 0 0

piu anno pagato p una cana ciupe comprata p riparare l'acqua sop^a una parte del coperto della Chiesa

£3 0 0

A Mastro Bartolomeo Caciotto p una giornata impiegata a riparare l'acqua sop^a d^e coperto et a due uomini che anno assistito d^e Mastro anno speso

£2 5 0

piu anno pagato ad un Mastro e due uomini che anno assistito p riparare una camera grande dove si è riposta la calcina della Parochia

£3 10 0

£95 17 0

(Signed) P. Lud^o Rebaudi
Prevosto

Also they have paid to three men for seven days that they have assisted in firing the kiln

£6 3 4

For having bought two baskets for carrying the small stones and two handles for the sledge-hammers they have spent

£1 7 0

Also they have spent for a carta ‡ of cracked nuts presented to Signor Conte Selarandi for having come with the Signor Engineer Gavella to examine the said church

£5 0 0

Also they have paid for a canna of slates bought for keeping out the water on a part of the roof of the church

£3 0 0

To Master Bartolomeo Caciotto for one day employed in repairing (lit. keeping out the water) the said roof, and to two men who have assisted the said mason, they have spent

£2 5 0

Also they have paid to a mason and two men who have assisted in repairing a large room where the lime for the church has been kept

£3 10 0

£95 17 0

(Signed)

In coming down towards our own times, we have begun to find the term "engineer" among these documents, and there is at Bordighera a contract about a statue, in the year 1715, from which a portion may be quoted to show how two branches of art-work were there united in a way made familiar by several great names:—

"... io Giacomo Ant^o Ponzanelli q. Giovanni Scultore ed Architetto prometto ed obbligo verso li SS^{se} Pietro Piana e Bart^o Ballauchi Deputati all' infrascritte cose di terminare il gruppo di marmo consignatomi rappresentante S^{ta} Maria Madalena per collocarsi al suo luogo destinato nella Chiesa Parrochiale del luogo della Bordighera.

"... I, Giacomo Ant^o Ponzanelli, son of Giovanni, Sculptor and Architect, promise and engage towards the Signori Pietro Piana and Bartolomeo Ballauchi, Deputies, for the under-mentioned matters, to complete the marble group consigned to me, representing S. Mary Magdalene, to be placed in its destined position in the parish church of the town of Bordighera.

The price agreed upon was 300 *jilippi*, § to be paid on the completion of the work, and, in addition, the cost of travelling, living, &c., for assisting at the placing of the statue in position.

‡ Quarta = carta, a measure still in use, especially for the sale of olives, and with a capacity of 20 litres.

§ A *jilippo* was equal to 5 *lire* 12 *soldi*.

* A *cannella* of rough stone for walling is now worth 6½ *lire* at the quarry.

† The stones forming the mouth of the furnace.



9, CONDUIT STREET, LONDON, W., 28th January 1899.

CHRONICLE.

THE PRIZES AND STUDENTSHIPS 1899.

The Council's Deed of Award read Monday, 16th January.

TO THE BUSINESS GENERAL MEETING.

GENTLEMEN,—Pursuant to the terms of By-law 66, that the Council shall, by a Deed or Writing under the Common Seal, award the Prizes and Studentships of the year, and announce such awards at the next General Meeting after the adjudication, the Council have the honour to state that they have examined the several works submitted for the two Silver Medals of the Royal Institute, the Soane Medallion, the Pugin and Owen Jones Studentships, the Godwin Bursary, the Tite Prize, and the Grissell Gold Medal.

THE ROYAL INSTITUTE SILVER MEDALS.

(i.) *The Essay Medal and £26. 5s.*

Seven Essays on the Use and Value of Colour in Architecture were received for the Silver Medal under the following mottoes:—

- | | |
|--|----------------------------|
| 1. "Aucassin." | 4. "Ian." |
| 2. "C'est une fée qui prodigue le bien ou le mal." | 5. "Non quo sed quo modo." |
| 3. Gloire de Dijon. | 6. "Satis verborum." |
| | 7. "Spectrum." |

The Council have awarded the Silver Medal and Twenty-five Guineas to the author of the Essay bearing the motto "Spectrum";* a Prize of Books to the value of Five Pounds to the author of the Essay under motto "C'est une fée qui prodigue le bien ou le mal,"† and Certificates of Honourable Mention to the authors of the Essays bearing the mottoes "Aucassin,"‡ "Gloire de Dijon,"§ and "Non quo sed quo modo."||

(ii.) *The Measured Drawings Medal and £10. 10s.*

Six sets of Drawings were sent in, of the several buildings enumerated, and under motto, as follows:—

1. "Nomen"—Moreton Old Hall, Cheshire.

* Hubert C. Corlette [A.]. † Frederick Charles Eden.

‡ Arthur Troyte Griffith, B.A. Oxon.

§ J. Humphreys Jones [A.], B.A. Lond.

|| Alexander N. Paterson [A.], M.A.

2. "Non vi sed sepe"—St. Catharine's College, Cambridge.
3. "Nox"—Southwold Church, Suffolk.
4. "Pitti"—St. Michael's Church, Linlithgow.
5. "Sulphur"—Riddlesden Hall, Keighley.
6. "Wren"—St. Paul's Cathedral.

The Council have awarded the Silver Medal and Ten Guineas to the delineator of St. Paul's Cathedral, submitted under the motto of "Wren,"¶ and Medals of Merit and Five Guineas to the delineators of St. Catharine's College, Cambridge, under motto of "Non vi sed sepe,"** and Southwold Church under motto of "Nox,"†† respectively.

THE TRAVELLING STUDENTSHIPS.

(i.) *The Soane Medallion and £100.*

Eleven Designs for a Concert Hall were submitted, under the following mottoes:—

- | | |
|---------------------------|-------------------|
| 1. "Ben Marcato." | 7. "Lohengrin." |
| 2. "Cecilia." | 8. "Olive Green." |
| 3. "Civitali." | 9. "Si je puis." |
| 4. "Honor." | 10. "Sol-fa." |
| 5. "Itinerant Architect." | 11. "Swan." |
| 6. "Lion Rampant." | |

The Council have awarded the Medallion to the author of the design bearing the motto "Ben Marcato,"‡‡ with the sum of One Hundred Pounds for architectural study abroad during a period of not less than six months, under the specified conditions.

(ii.) *The Pugin Studentship and £40.*

Eleven applications were received for the Pugin Studentship from the following gentlemen:—

1. R. C. Austin (London).
2. E. H. Bennett (London).
3. Benjamin Bower (Birmingham).
4. Ernest H. Evans (London).
5. Albert Herbert (Leicester).
6. G. Salway Nicol (Birmingham).
7. Charles B. Pearson (Lancaster).
8. H. Raine (London).
9. J. Hervey Rutherford (London).
10. Ramsay Traquair (Edinburgh).
11. J. A. Woore (Derby).

The Council have awarded the Medal and (subject to the condition, among others, that the said candidate devote a tour of not less than eight weeks' duration in some part of the United Kingdom to the study of Mediaeval Architecture) a sum of Forty Pounds to Mr. J. Hervey Rutherford, a Medal of Merit and Ten Guineas to Mr. E. H. Bennett, a Medal of Merit and Five Guineas to Mr. Ramsay Traquair, and a Certificate of Honourable Mention to Mr. Albert Herbert.

(iii.) *The Owen Jones Studentship and £100.*

Three applications were received for the Owen Jones Studentship from the following gentlemen:

1. Vivian John Cummings (London).
2. John Stewart (Bridge of Allan, N.B.).
3. Edgar T. A. Wigram (London).

The Council have awarded the Certificate and

¶ Henry Ernest Kirby [A.].

** Heaton Comyn.

†† Edward F. Knight.

‡‡ William Arthur Mellon.

(subject to the conditions, among others, that the said candidate devote a tour of not less than six months' duration to the improvement and cultivation of his knowledge of the application of colour as a means of architectural expression, and furnish the Council with an original design in coloured decoration of a prescribed subject) One Hundred Pounds to Mr. John Stewart.

(iv.) *The Godwin Medal and £40.*

One application was received for the Godwin Bursary from the following gentleman:—

E. W. M. Wonnacott (London).

The Council have awarded the Medal and (subject to the condition, among others, that the said candidate spend not less than five weeks in some part of Europe, other than Great Britain and Ireland, or America for the purpose of studying and reporting on works of Modern Architecture) the sum of Forty Pounds to Mr. E. W. M. Wonnacott.

(v.) *The Tite Certificate and £30.*

Eight Designs for a Royal Mausoleum were submitted under the following mottoes:—

- | | |
|--------------------|-----------------|
| 1. "En Avant." | 5. "Memoria." |
| 2. "Endeavour." | 6. "Petronius." |
| 3. "Imperial." | 7. "Red Rose." |
| 4. "Memento Mori." | 8. "Rex." |

The Council have awarded the Certificate and (subject to the condition, among others, that the said competitor, after an absence of not less than four weeks, shall submit satisfactory evidence of his studies in Italy) a sum of Thirty Pounds to the author of the design bearing the device "Red Rose,"* a Medal of Merit and Five Guineas to the author of the design bearing the motto "Petronius,"† and a Certificate of Honourable Mention to the author of the design bearing the motto "Memoria."‡

PRIZE FOR DESIGN AND CONSTRUCTION.

The Grissell Medal and £10. 10s.

Four Designs for a Fruit, Flower, and Vegetable Market were submitted under the following mottoes:—

- | | |
|-----------------|----------------|
| 1. "Artichoke." | 3. "Khartoum." |
| 2. "Jack." | 4. "Simplex." |

The Council have awarded the Medal and Ten Guineas to the author of the design bearing the motto "Simplex,"§ and a Certificate of Honourable Mention to the author of the design bearing the motto "Jack."||

THE ASHPITEL PRIZE.

The Board of Examiners (Architecture) having reported that none of the successful candidates in the Final Examinations of 1898 has distinguished

* James B. Fulton. † Alexander McInnes Gardner.

‡ Ernest T. Jago.

§ G. Gardner Wallace. || Charles A. Daubney.

himself sufficiently to deserve the Ashpitel Prize, value Ten Guineas, the Council, on the recommendation of the Board, have awarded a Prize of Five Guineas to Mr. Charles Riddey [A.] and Mr. John Kirkland respectively.

THE ARTHUR CATES PRIZES.

Prizes of Books to the value of Ten Guineas, offered by Mr. Arthur Cates, ex-Chairman of the Board of Examiners, to the Students whose testimonies of study for admission to the Final Examination are considered by the Board to best merit the Prizes, provided they pass the examination for which the said testimonies are submitted, have, on the recommendation of the Board of Examiners (Architecture), been awarded to Mr. Albert Herbert, of Leicester, for the June Examination, and to Mr. H. Inigo Triggs, of London, for the November Examination.

EXTRA PRIZE FOR TESTIMONIES OF STUDY.

An extra prize of Five Guineas has been awarded to Mr. Henry Tanner jun., of London, for his testimonies of study submitted for the November Final Examination.

THE TRAVELLING STUDENTS' WORK IN 1898.

Pugin Student.—The Council have approved the work of Mr. Charles de Gruchy, who was elected Pugin Student for 1898, and who travelled for three months in Cornwall.

Tite Prizeman.—The Council have approved the work of Mr. John Stevens Lee, who was awarded the Tite Prize in 1898, and who travelled in Italy.

Aldwinckle Student.—The Council have approved the work of Mr. James B. Fulton, who was awarded the Aldwinckle Studentship in 1898, and who travelled in Spain for a period of not less than eight weeks.

Owen Jones Studentship 1897.—In view of the work at present being executed at Constantinople by Mr. A. E. Henderson, Owen Jones Student of 1897, the Council have decided to grant him a sum of Fifty Pounds out of the Owen Jones Fund, being the value of the Studentship not awarded in 1898.

In witness thereof the Common Seal has been hereunto affixed this Sixteenth day of January 1899, at a Meeting of the Council, G. ARCHISON, President; EDW. A. GRUNING, Vice-President; ED. W. MOUNTFORD for Hon. Secretary; P. GORDON SMITH, JOHN BELCHER, J. M. BRYDON, Members of Council; W. J. LOCKE, Secretary.

THE ESSAY MEDAL AND THE SOANE MEDALLION.

In reading the Deed of Award at the Meeting of the 16th inst., the Chairman, Mr. E. W. Gruning, referred to the high standard of general excellence among the seven essays sent in, the

winning essay being exceptionally well illustrated. The Council had been pleased to signify their appreciation by awarding a second prize, and bracketing for honourable mention the work of three other competitors.

With regard to the Soane Medallion, the President, at last Monday's meeting, stated that the Council considered that the selected design was by far the best sent in, and that they had thought fit to award it the prize, notwithstanding that the design contravened in certain particulars the regulations of the London Building Act.

Prize Drawings to be exhibited at Allied Centres.

The selection made from the Prize Drawings for the annual exhibition at the Allied Societies throughout the country comprises the drawings indicated below, to the number of twenty-four strainers. These are accompanied by thirty sheets of Testimonies of Study submitted for the past year's Examinations, including those awarded the Arthur Cates and extra Prizes for Testimonies of Study at the June and November Final Examination.

The Royal Institute Silver Medal (Measured Drawings).—St. Paul's Cathedral, North Porch (1 strainer), by Mr. H. E. Kirby (under motto "Wren"), awarded the Medal and Ten Guineas.—St. Catharine's College, Cambridge (2 strainers), by Mr. Heaton Comyn, awarded Medal of Merit and Five Guineas.—Southwold Church (1 strainer), by Mr. Edward F. Knight, awarded Medal of Merit and Five Guineas.

The Soane Medallion.—Design for a Concert Hall (2 strainers), by Mr. William Arthur Mellon (under motto "Ben Marcato"), awarded the Medallion and One Hundred Pounds.

The Pugin Studentship.—Drawings and Sketches (3 strainers), by Mr. J. Hervey Rutherford, awarded the Medal and £40.—Drawings and Sketches (2 strainers), by Mr. E. H. Bennett, awarded Medal of Merit and Ten Guineas.—Drawings and Sketches (1 strainer), by Mr. Ramsay Traquair, awarded Medal of Merit and Five Guineas.—Drawings and Sketches (1 strainer), by Mr. Albert Herbert, awarded Honourable Mention.

The Tite Prize.—Design for a Royal Mausoleum (3 strainers), by Mr. James B. Fulton (under motto "Red Rose"), awarded the Certificate and £30.—Design for the same subject (2 strainers), by Mr. Alex. McInnes Gardner (under motto "Petronius"), awarded Medal of Merit and Five Guineas.—Design for the same subject (1 strainer), by Mr. Ernest T. Jago (under motto "Memoria"), awarded Honourable Mention.

The Owen-Jones Studentship.—Colour drawings (3 strainers), by Mr. James Stewart, awarded the Certificate and One Hundred Pounds.

The Grissell Medal.—A Design for a Fruit, Flower, and Vegetable Market (2 strainers), by

Mr. G. Gardner Wallace (under motto "Simplex"), awarded the Gold Medal and Ten Guineas.

Final Examination: Testimonies of Study.—4 sheets by Mr. Albert Herbert [A.], *Cates Prizeman* June 1898; 7 sheets by Mr. H. Inigo Triggs, *Cates Prizeman* Nov. 1898; 7 sheets by Mr. Henry Tanner, jun., *Extra Prizeman* Nov. 1898.

Intermediate Examination, Testimonies of Study.—5 sheets by Mr. Lionel Upperton Grace; 5 sheets by Mr. Thomas Frank Green; and 2 sheets by Mr. Thomas Joseph Byrne.

The drawings go first to the Allied Society at Birmingham, where they will be on view at the exhibition of students' work in connection with the Birmingham School of Art, which opens on the 6th February.

THE ADMINISTRATION OF BUILDING BY-LAWS IN RURAL DISTRICTS.

Discussion at the Institute, 16th January.

Mr. LACY W. RIDGE [F.], in accordance with notice, brought forward the following resolutions at the General Meeting of the 16th inst., Mr. Edw. A. Gruning, *Vice-President*, in the Chair.

1. That the administration of Local Building By-laws in rural districts is a matter calling for the action of the Royal Institute.
2. That the Council be requested to communicate with the Local Government Board on the subject, and to appoint a Special Committee to consider and take action thereon.
3. That matters of sanitation, including the preparation of the site for building, should in all cases be carried out under the supervision of the Local Authorities. That where separate tenements adjoin they should be divided by party walls of incombustible material. That the interests of the public in buildings in rural districts are not such as to justify any further interference on the part of the public authorities with the construction of buildings.

Mr. RIDGE observed that the subject of building by-laws in rural districts deserved the attention of the Institute. Architects who practised in rural districts must find this to be the case. They were called upon to supply drawings and to submit to regulations with regard to buildings put up in country districts, which added to their duties and to their clients' expenses. At the recent meeting at Birmingham [p. 105] the subject had been discussed, and considerable feeling expressed that something should be done. The matter had also attracted the attention of the public, and letters had appeared in *The Times* on the subject—amongst them, one from their old and valued member Professor Roger Smith. With regard to

his second proposition, which naturally followed upon the first, he suggested the Institute's going to the Local Government Board, because the assent of that body was necessary to any building by-laws made by local authorities. Large towns were capable of taking care of themselves, but country places had not the same power of adapting by-laws to their requirements, and depended largely upon the Local Government Board. Accordingly the Local Government Board should be approached by the Institute, with a view to getting them to reconsider the Model By-laws now put forward—first, because since they were framed a new and considerably improved Metropolitan Building Act had come into operation, under which there was greater liberty of building and greater liberty of design than under the old Act; and secondly because these Model By-laws, however applicable they might be to large towns, where people were crowded together, were very inapplicable—indeed, oppressively inapplicable—to country districts. If the Local Government Board could be persuaded to draw up a series of by-laws which would apply to large towns, some which would apply to towns of moderate dimensions, and some which would apply to rural districts only, architects would be relieved of a great deal of unnecessary and unpleasant supervision by officials, often ignorant of building, who considered themselves bound to enforce the by-laws, whether they did any good when carried into execution or not. If the Local Government Board would move in that direction architects would be relieved in many cases from difficulties which were very annoying if they were not very important. Unfortunately, the less important it was that by-laws should be enforced, the less competent was the local authority either to make the by-laws or to enforce them when made, or to know when not to enforce them when inapplicable. Among the powers of making by-laws were those of imposing penalties in case of their infraction, and nothing could be less satisfactory than the present state of things with regard to that matter. As regards any by-law there should be some means of ascertaining, as there was under the London Building Act, what the law is, and what the local authority was entitled to enforce; and disputes should be settled by a properly constituted Court. He proposed that the Institute should appoint a committee to approach the Local Government Board on the matter. It might be thought that it was a subject for the Practice Committee to take up. But he had brought it before that Committee some years ago, and found that there was a stupendous weight of town influence, and that they did not care sufficiently about things in the country to take any action upon it. Ultimately the Practice Committee turned their attention to the London

Building Bill, and the Institute scored from that line of action, as London architects had an opportunity of assisting in the formation of the new Act. The same thing should be done with regard to the rural laws. The committee to be appointed should not be composed of men entirely interested in London, of men who, as it were, had drawn in the London Building Act with their mothers' milk, and who conceived that everything written in that Act was of the eternal fitness of things and must be applied everywhere. The committee should consist mainly of men interested in country work, who did not feel that it was necessary for the law to regulate small matters of building in country places. Though originally he wished to see this matter taken in hand, specially with regard to rural districts, if those interested in the Paper and discussion at Birmingham thought that their views also should go before the Local Government Board, it was manifest that they could not have two committees communicating with the Board at once, and a proportion of members interested in the larger question might very properly be put on the committee—that might be left to the Council. His third proposition was an attempt to show the lines on which the regulations might be arranged. The public could have no interest in a man's building in an isolated spot away from his fellow-men, building on his own account and for his own uses—except so far as the general health was concerned. The public had a right to interfere from considerations of health; and it was extremely important in treating drainage that the rivers and streams should not be polluted, or anything done that would be a nuisance to other people. On the subject of health, therefore, by-laws should apply throughout the whole country. None should be exempt. Railway stations, for instance, should be subject to them; their sanitary appliances were generally very defective; how they got rid of their sewage he could not say—but the parish officials should be in a position to know. In country places houses occasionally were built adjoining one another; and where two separate premises adjoined the provision of a party wall between the two was not unreasonable. If they had by-laws suitable to such conditions they would, he thought, apply to the vast majority of country towns which now considered themselves bound to take over by-laws only fitted to and required in crowded towns. Why market towns should bother themselves with by-laws that were perfectly unnecessary he could not imagine—unless it was that they considered it so much more respectable and their officials thought it so much more important to be an urban authority. But they were not urban in the sense of being crowded. The ordinary market town consisted of one long street and a few side streets, and was not at all crowded; nothing was necessary beyond the enactment of

the party wall, and that the sanitary conditions should be satisfactory. Why one should be compelled to build always in brick or stone, or why one should be refused the use of such things as weather-tiling, or why timber should not be used in a more sane manner than allowed by the Model By-laws—which seemed to him a very fine model for producing dry-rot—he did not know. The public had no interest in interfering in such things at all—and any interference which was not necessary was against the liberty of the subject, and in itself vicious. He asked the support of the Institute to the two first propositions primarily, and to the third if they should approve of it, as it would then go as a sort of instruction to the committee as to the line of action to be adopted. He did not desire the Institute to be committed absolutely to the third proposition, but he put it forward as a general instruction to the committee.

Mr. WILLIAM WOODWARD [A.] seconded Mr. Ridge's proposals. Judging from the Paper read at Birmingham by Mr. Henman—a very strong Paper indeed; judging from the letters which had appeared in the *Times*—one notably from Mr. Eustace Balfour, in which the writer complained of the supervision of buildings in London, and advocated what Mr. Ridge contended for—viz. elasticity in dealing with these things; and judging also from a Paper recently read by Mr. Weaver before the Surveyors' Institution, it seemed that this question of the supervision of buildings, whether in London or in rural districts, was forcing itself to the front. Those who had to put up with what Mr. Ridge termed unpleasant supervision—those subjected to what he ventured to term, adopting a now historical phrase, a policy of pin-pricks, for matters absolutely trivial in their character, with no bearing whatever upon the substantial character of the building, with no use whatever to the client public, must agree with Mr. Ridge in thinking that those questions should be carefully reconsidered. With regard to the use of different materials, it was obvious that if a building was situated in a thoroughfare adjoining other buildings where there was danger from fire, strict supervision should be exercised; but when those buildings, as in many rural districts, were so isolated that they had no reference whatever to the public, the by-laws of the Local Government Board should be much less stringent. With regard to the suggestion that exemptions should be made on the one ground of health, he thought they might go further: questions not only of lines of frontage in the present, but, looking forward to the increase in the buildings in any particular town, lines of frontage in the future should be considered, and very strictly considered, by the local authorities. Not only, however, in rural districts, but also in London there should be no exemptions from any measure which was brought forward for the benefit

of the community. He could not understand why railway stations, or railway companies, or the Inner Temple, or Middle Temple, or the Office of Her Majesty's Works, should be exempted from the provisions of the Building Act. The Building Act should be applied to everybody building in London. Though the matter was not strictly within the purview of Mr. Ridge's proposals, he was of opinion that if anything was done on the question of supervision of buildings, particularly with regard to matters under the London Building Act, those matters should be relegated from the Police Magistrates to a tribunal which at least could understand the subject brought before them. With regard to elasticity in the application of by-laws, those who had to deal with the London County Council on questions arising under the Factories Acts appreciated the advantage derivable from that Act in each case having to be considered with reference to its own particular circumstances. The County Council officials were thus enabled to deal with each case on its merits, and do absolute justice to the occupants and owners of buildings. He trusted the Council would see its way to adopt Mr. Ridge's suggestion and do its best to secure elasticity in the supervision of buildings, not only in London, but in the rural districts. Such action would have his hearty support.

Mr. W. M. FAWCETT, *Vice-President*, said that from his experience of the Local Government Board he was sure they would meet any committee from the Institute in the most friendly manner. Some years ago, when the by-laws for Cambridge were drawn up, he remembered the courteous way in which his committee were received by the officials of the Local Government Board, and how they yielded to their reasonable objections against the Model By-laws which the Board had sent them. One he remembered particularly. Cambridge was naturally a very crowded town, having many little houses in the narrow streets, and the ordinary Model By-law said that no domestic building might be built without having a considerable courtyard at the back. The natural result would have been that, if anything happened necessitating renewal, a number of houses could never have been rebuilt at all, because they had not the required space behind them, and owners who anticipated what would happen before the buildings fell down would have built the roof first, then the floors below, and the foundations last of all, and so managed to keep up their buildings. The Local Government Board gave way at once to the objections, and agreed to a by-law which met the case, so that if buildings which were hemmed in were pulled down and rebuilt, they might be rebuilt on that site, provided they went no higher than they were before. There were other things in the by-laws which, speaking from further experience, still required considerable amendment, but they

were matters for the consideration of a committee of the Institute if one were appointed to confer with the Local Government Board. There is, for instance, no good definition of what a return wall is. Then there is the question of what the topmost story is. The by-law said if it were above thirty feet high it might be built with a nine-inch wall, and if it were on the ground floor it might not, which was rather absurd. Those were matters on which the Local Government Board were quite sure to meet in the most friendly manner any committee the Institute were likely to appoint. He should certainly support a committee being appointed, because further consideration of the subject would lead to the benefit of the public and of the profession.

Mr. DOUGLASS MATHEWS [F.] said that when the Model By-laws were being prepared the matter was referred to a committee of the Institute, who went very carefully through them. They were intended for the purpose of giving the local authority some idea of what was desirable for securing healthy conditions to a district, and also with a view to improved buildings; but now it seemed that those by-laws, instead of being looked upon as models only, were taken as actual by-laws to be applied to all cases, whereas they should be adapted by local bodies to the requirements of their particular neighbourhoods. If care were taken a great deal of the trouble referred to by Mr. Ridge, which they all appreciated and sympathised with, would be prevented. If the Local Government Board could see their way to reconsider the whole matter it would be very desirable. A great deal of attention was given to the subject by the Institute committee he had mentioned, but circumstances had altered since then, and some modification of the by-laws was now called for. It was thought at the time that the medical officers had a great deal too much to do with it at Whitehall, but probably they saw further at the time than architects. As regarded regulations concerning health, none would desire them to be less stringent, but it would certainly be an advantage to the country generally if many of the requirements referred to by Mr. Ridge were very considerably relaxed.

Mr. OWEN FLEMING [A.] said he supported very strongly the first two resolutions. There was a tendency to adopt city regulations in places where they were unsuitable, and reconsideration of the matter by the Institute would result in much good. It was doubtful, however, whether Resolution No. 3 was advisable, as it would seem to tie the hands of the committee. It would be better to let the committee have a free hand. Instead of specifying "party wall," for instance, they might choose to say "party structure." It was doubtful too whether the question of through ventilation at the back of houses would be included in "sanitation." He would suggest that Nos. 1

and 2 be passed, and that No. 3 be referred to the committee to consider.

Mr. EDMUND WOODTHORPE [F.] supported Mr. Fleming's view. By-laws made for the protection of people who were unable to protect themselves would not interfere unduly with the ordinary larger class of buildings—except in the matter of sanitation, which was usually well looked after by the people who build larger houses. But in small cottages and similar property in the country serious cases of defective drainage, cess-pools, insufficient water supply, defective ventilation and such like things occurred, which were not so common in London or anywhere near large towns. If a committee were appointed their hands should not be tied, but they should be perfectly free to make any recommendation they thought desirable. He must take exception to what Mr. Ridge had said about the Practice Committee. When that committee was considering the London Building Act, although some of its members may have been teethead on the provisions of Building Acts, many of them had a considerable country practice besides their London practice, and those who had not, he was sure, listened with great respect to those whose practice was mainly in the country. The Practice Committee at the present time was in want of some work, and he should have thought that this matter would have been well considered by that committee.

The CHAIRMAN said he felt there was something in Mr. Ridge's objection that the Practice Standing Committee was composed almost entirely of London architects. Any committee that should go into the question of rural by-laws should call in the assistance of country architects. That would be of the greatest benefit.

Mr. RIDGE explained that he was referring to a period years before Mr. Woodthorpe came on the Practice Committee.

Mr. E. GUY DAWBER [A.] said Mr. Ridge's proposal had his very hearty support. This was a case in which the Institute might help very strongly the great bulk of its country members. Country architects suffered much on account of rural by-laws, which in a great many cases were exceedingly vexatious and harassing and unpleasant. Nearly all small districts were getting by-laws now, and appointing urban surveyors; and in most cases their regulations were taken *en bloc* from either the London or Birmingham or other Building Acts, and applied quite irrespective of the buildings they were intended for in the country, and as a rule by men who had little or no knowledge of building—farmers or country tradesmen, or persons of that sort—while the man who was appointed as inspector or district surveyor when they started to build in many cases had been previously the inspector of nuisances. These officials were often very fond

of heckling the architect and carrying out the by-laws to the very letter. If the Institute could take action in the matter and appeal to the Local Government Board, they would greatly assist country architects.

Mr. P. GORDON SMITH [F.] said he was very glad Mr. Ridge had raised this question, as it was evident from the correspondence in the papers that the subject needed attention. He was quite sure—in fact, he could pretty well promise—that the Local Government Board would receive any representations that might be made to them by the Institute with the utmost consideration. He would not discuss the details of Mr. Ridge's resolutions. The first and second called for no further discussion. The third was inclined to drift into points of detail, and he would fight shy of it, because, looking into it, he found himself involved in certain difficulties. He did not understand, for instance, how far it would be right that, if a party wall of incombustible material were to be required between two attached houses, two detached houses in close contiguity might be built with external walls of weather-boarding. So far as his experience had gone in discussing this question with a great many architects all over the kingdom, he thought there was great want of knowledge of the circumstances under which building by-laws may be made. The Model By-laws were published in 1877—they had been in course of preparation for a few years before that—but they were made under the authority of the Public Health Act 1875, and they gave only to urban authorities the power to make by-laws on certain specified subjects. The Act further gave to rural district councils power to get urban powers where they thought it desirable; that is to say, where the rural district council saw that one part of their district was developing, or likely to develop, into anything like a town, where there were going to be building operations, they could apply at once to the Local Government Board for power to make the same by-laws as if they were an urban district. Under that Act a great many rural district councils had obtained power to make by-laws, and those by-laws remain in force until repealed. In many cases he personally had suggested modifications of the Model By-laws in order to abate the stringency of their requirements; and there were now published a vast number of modified clauses which went a long way to relieve the oppression (if he might call it so) created by the original Model By-laws. As an example, where party walls were required to go up through and above the roof, it had been usual for a great many years to allow in rural districts a by-law requiring the party wall to go up only to the under side of the roof covering. That modification was considered sufficient in the case of small buildings. Numerous other modifications had been allowed from time to time, and these were now published and accessible to every-

body, but owing to the repeated complaint of oppression the Legislature (for the Local Government Board was acting only under legislative powers) passed the Public Health Acts Amendment Act 1890, which extended the power of making by-laws from what it was under the Act of 1875, so as to give rural district councils the power to make by-laws of their own accord, without any application to the Local Government Board beyond what was required of all by-laws, viz. for confirmation on two or three different points, such as foundations and walls of buildings, for purposes of health, and a few other health clauses. This went a long way to meet Mr. Ridge's complaint. Rural district councils could now make by-laws without any difficulty whatever, so far as foundations and walls and matters of drainage were concerned.

Mr. RIDGE remarked that if those authorities stopped there he would not mind; but they brought in things which were not required, and some limitation should be put on their powers.

Mr. GORDON SMITH, continuing, said they were already limited. Rural district councils could not make by-laws with regard to the walls of buildings, for example, for the prevention of fires, or for securing stability, unless they got special powers. It had been said that rural district councils were not competent to make by-laws. But the Legislature thought otherwise; therefore, rightly or wrongly, they could do so. He himself was not prepared to admit that they were incompetent. Then the complaint was made that they had power to enter a building and pull down what was in contravention of the by-laws. Was that any serious hardship? If the by-laws had to be carried out, power must be given to have them enforced both as regarded entering and pulling down what was in contravention of them, and as to the enforcement of penalties. The same with regard to penalties for continuing offences; there must be penalty clauses; the by-laws would be unworkable without them. Then, again, the question of compliance or non-compliance with the requirements of the by-laws had to be settled by some competent Court, and the Legislature had laid it down that the competent Court—for better or worse, whatever it was worth—was in the first instance the police court or the bench of magistrates. If parties were not satisfied with their decisions they must go to the higher Courts. Then if they were prepared to accept the control of the building operations so far as they were allowed to be regulated—if they were prepared to accept the control of the district councils as regarded health matters, why could they not be trusted with the control of the other two matters they had or might have to deal with? It must be borne in mind that by-laws, in order to be of any use in a growing district, must be made before the district grew much. He had known districts where the by-laws had been delayed in order that

the speculating builders on the district council might get their buildings up before the by-laws were passed. He did not in the least oppose Mr. Ridge's suggestion that a committee should be appointed to go into the whole matter. He would rather go further than a committee of the Institute and agitate for a much higher committee to go into the question of the administration of the controlling laws relating to building all over the country, to see how they work and how they could be amended and improved with advantage. But if the subject were fully considered by the Institute, and the Council decided to make any representations to the Local Government Board on the matter, he could assure them that those representations would be considered with the most careful attention.

MR. RIDGE said he did not quite follow Mr. Gordon Smith with regard to the penalties. He had not realised whether they could take things before magistrates in the country in the same easy way as they could before a magistrate in London in case of disagreement with the district surveyor. [MR. GORDON SMITH replied that it was just the same in the country; parties could go before a bench of magistrates.] MR. RIDGE, continuing, said that as a matter of fact the real evil arose from the desire of very small places to believe themselves to be towns, and more particularly to believe themselves to be growing and important towns. Places with 1,500 inhabitants found they had built some twenty houses in a year, and thought that they were growing at such a pace that they must have the powers of Manchester or Liverpool; and then three miles away from the town people were subject to these Metropolitan by-laws often they knew nothing about it until their buildings were three-quarters up. As far as the discussion had gone every one seemed willing to accept Resolutions Nos. 1 and 2. The third proposition he did not insist on; but it would be useful as an indication of the line the committee should take.

After some further discussion on a proposal to adopt part of the third resolution, Mr. DOUGLASS MATHEWS urged that if Nos. 1 and 2 were carried it would be sufficient to refer the third proposition to the committee, who should take this and all other matters into consideration.

MR. H. HEATHCOTE STATHAM [*F.*] thought this was the best course. They would be all the more unanimous, and probably do more good by supporting Nos. 1 and 2, and, if Mr. Ridge were willing, letting No. 3 drop.

MR. RIDGE having agreed to withdraw his third resolution, Nos. 1 and 2 were thereupon put from the chair and carried unanimously.

Mr. Henman's Paper [p. 105].

MR. A. H. WORSLEY [*A.*] writes, under date 17th January:—

I understood that London members of the R.I.B.A. were to have an opportunity of speaking on Mr. Henman's Paper at last night's meeting, but as the whole discussion was confined to Mr. Ridge's motion, I should like the opportunity of recording my views in the form of a letter. I think it is most unfortunate that Mr. Henman should have thought it desirable to refer to a matter reflecting on the character of Building Inspectors, which indirectly reflects upon architects (for many have been trained as architects), and even members of our own Institute and I venture to hope that these gentlemen will bestir themselves in order to clear their character of what may be regarded as a direct stain on their honesty, whether in their fair supervision or otherwise. I quite agree that Building Inspectors are, in most instances, underpaid for the thankless task they have to perform, and if Mr. Henman has had unpleasant experiences, there seems to be no reason why he should tar them all with one brush, nor do I see what good the introduction of such matter will do in furthering the object he has in view. I have had occasion to meet many Building Inspectors, but have never found anything but fair play and honesty, and I am inclined to think that architects are sometimes in error in not making themselves acquainted with local by-laws when preparing their plans. If by-laws are in force, and are ignored in one case and not another, how is the Building Inspector to draw the line, seeing that he is not allowed any discretionary power?

Cav. Boni's Researches at the Roman Forum.

The President sends for publication the following extracts from a letter he has recently received from the Cav. Giacomo Boni [*Hon. Corr. M.*]:—

"The Ministry of Public Instruction having accepted my proposal to complete the excavations and rearrange the architectural remains of the Forum Romanum, I was put in charge of the works last September, with the following results:—

(1) The discovery and rearrangement of unknown blocks, carved or moulded, of the Arch of Fabius, of the Basilica Æmilia, of the Arch of Tiberius, Basilica Julia, &c.

(2) The discovery of the secret room of the Temple of Vesta.

(3) The discovery of the base of the *ara* raised on the spot where Cæsar's corpse was cremated.

(4) The discovery of the tomb of Romulus, the *niger lapis* of Festus, in the Comitium. (See the Scholiasts of Horace, *Ep.* xvi. 13, who quote Varro.)

Having got hold of the prolongation of the Sacra Via, which I have already dug in the direction from the Regia to the Arx, I shall proceed with the excavation of the Clivus Viæ Sacræ to the

Summa Sacra Via, having gathered proofs to demonstrate that originally it went straight to meet the axis of the Colosseum, and that Hadrian removed the Arch of Titus to its present situation when he built the Temple of Venus and Rome.

At the same time my investigations will turn round the Rostra and the so-called Græcostasis in order to determine also the extent of the Volcanal and the site of the Arch of Tiberius. I am strengthening the angle of the Temple of Saturn in order to be able to explore and discover the cellæ of the *Ærarium*.

During my investigations in the Forum I study the character of each architectural detail, with some interesting results—enough to prove, for instance, that the Temple of Castor and Pollux, and that of Mars Ultor, are not specimens of arch work of the age of Tiberius or of Augustus, but are both the work of Hadrian. . . .

My proposal to demolish the modern pavement which cuts in two the Temple of Romulus (the son of Maxentius) has been approved, and I propose to collect in that interesting round building of the fourth century the casts of ancient bas-reliefs showing the buildings of the Forum in their original condition, together with a series of old drawings and engravings illustrating the history of the excavations since the fifteenth century."

Mr. Penrose's Portrait.

At the request of Mr. J. S. Sargent, R.A., the Council have sanctioned the removal of the portrait of Mr. Penrose (*Past President*) from the Institute to Boston, U.S.A., to form part of an exhibition of the artist's works which is to be held early next month in that city. It has been heavily insured against accident, and will be away for two months. A negative of the portrait has been taken by Mr. Fred. Hollyer, the photographer, of Pembroke Square. Members who may desire to purchase photographs are requested to communicate with the Secretary.

The Royal Institute of Architects of Ireland.

Mr. Thomas Drew [F.], President of the allied body in Dublin, desires to announce that Central Rooms having been established for the Royal Institute of Architects of Ireland at 20, Lincoln Place, Dublin, they are at the disposal, for address or occasional use, of any member of an Allied Society visiting Dublin, on application either to himself or to Mr. William Mitchell, who has offices adjoining.

Erratum.—An error requires correction in the description of the trusses illustrated on pp. 122-23 (Major Scott Moncrieff's "Experiments on full-sized Timber Trusses"): in each case for 32-inch span read 32-foot span.

MINUTES. V.

At the Fifth General Meeting (Business and Ordinary) of the Session, held Monday, 16th January 1899, Mr. Edw. A. Gruning, *Vice-President*, in the Chair, with 17 Fellows (including 8 Members of the Council), 18 Associates, and several visitors, the Minutes of the Meeting held 19th December 1898 [p. 104] were taken as read and signed as correct.

The following candidates for membership were elected by show of hands:—

As Fellows.

GEORGE HORNBLOWER [*A. Qualified 1888*].
HENRY HOYNE FOX [*A. Qualified 1887*].

As Associate.

JOHN ALFRED JONES, Jun. (*Qualified 1888*).

The Secretary called attention to a list of recent donations to the Library [see *Supplement*], and a vote of thanks to the various donors was ordered to be entered upon the Minutes.

The Chairman having read the Deed of Award of the Prizes and Studentships 1899, made by the Council under the Common Seal [p. 159], the sealed envelopes bearing the mottoes of the successful competitors were opened, and their names and addresses found to be as follows:—

THE ROYAL INSTITUTE SILVER MEDAL (Essays).

"*Spectrum*."—Hubert C. Corlette [A.], 18, Selwood Place, Onslow Gardens, S.W. (Silver Medal and Twenty-five Guineas).

"*C'est une fée qui prodigue le bien ou le mal*."—Frederick Charles Eden, 3, Staple Inn, Holborn, W.C. (Prize of Books value £5).

"*Aucassin*."—Arthur Troyte Griffith, B.A. Oxon., The Priory Gateway, Great Malvern, Worcestershire (Certificate of Honourable Mention).

"*Gloire de Dijon*."—J. Humphreys Jones [A.], B.A. Lond., 94, Dalston Lane, N.E. (Certificate of Honourable Mention).

"*Non quo sed quo modo*."—Alexander N. Paterson [A.], M.A., 136, Wellington Street, Glasgow (Certificate of Honourable Mention).

THE ROYAL INSTITUTE SILVER MEDAL (Measured Drawings)

"*Wren*."—Henry Ernest Kirby [A.], St. James's Palace, S.W. (Silver Medal and Ten Guineas).

"*Non vi sed sepe*."—Heaton Comyn, c/o R. Shekleton Balfour, Esq., 76, Inverness Terrace, W. (Medal of Merit and Five Guineas).

"*Nor*."—Edward F. Knight, North Bank, Oakleigh Park, N. (Medal of Merit and Five Guineas).

THE SOANE MEDALLION.

"*Ben Marcato*."—William Arthur Mellon, 136, George Street, Edinburgh (Medallion and, under conditions of Continental travel, £100).

THE TITE PRIZE.

"*Red Rose*."—James B. Fulton, 34, Mecklenburgh Square, W.C. (Certificate and, under conditions of travel in Italy, £30).

"*Petronius*."—Alex. McInnes Gardner, 3, Albion Street, Downhill, Glasgow (Medal of Merit and Five Guineas).

"*Memoria*."—Ernest T. Jago, 16, Garfield Road, Laver Hill, S.W. (Certificate of Honourable Mention).

THE GRISSELL MEDAL.

"*Simpler*."—G. Gardner Wallace, 18, Mommery Road, Upper Holloway, N. (Gold Medal and Ten Guineas).

"*Jack*."—Charles A. Daubney, 1, Wellington Road, Peckham, S.E. (Certificate of Honourable Mention.)

Mr. Lacy W. Ridge [*F.*], in accordance with notice, brought forward a series of resolutions concerning the administration of local building by-laws in rural districts—urging in Nos. 1 and 2 that the subject called for the action of the Institute, and that the Council should communicate with the Local Government Board, and appoint a Committee of the Institute to consider the matter; and in No. 3 indicating the direction in which modification of present by-laws was desirable, and suggesting some limitation of the power of interference by local authorities in matters of building construction. The resolutions having been seconded by Mr. Wm. Woodward [*A.*], a discussion ensued, at the conclusion of which Mr. Ridge, in deference to the feeling of the Meeting, withdrew his third resolution, it being understood that it should go as a general instruction to any committee appointed. Whereupon it was

RESOLVED, *nem. con.*, that the administration of Local Building By-laws in rural districts is a matter calling for the action of the Royal Institute; and that the Council be requested to communicate with the Local Government Board on the subject, and to appoint a Special Committee to consider and take action thereon.

The proceedings then closed, and the Meeting separated at 9.20 p.m.

MINUTES. VI.

At the Sixth General Meeting (Ordinary) of the Session, held Monday, 23rd January 1899, at 8 p.m., Professor Aitchison, R.A., *President*, in the chair, with 27 Fellows (including 15 members of the Council), 30 Associates, 2 Hon. Associates, and several visitors, the Minutes of the Meeting held 16th January were taken as read and signed as correct.

The following Associates, attending for the first time since their election, were formally admitted and signed the Register, viz.:—James Alfred Ernest Lofthouse and Thomas Ashton Lofthouse (both of Middlesbrough).

The President called attention to two portfolios of sketches and several framed drawings, the work of the late Professor Hayter Lewis, which had been lent for the occasion by Mrs. Harvie, daughter of the deceased, and to a number of works on architecture, forming part of the library of Professor Lewis, which had been presented to the Institute Library by his executors [see *Supplement*]; whereupon, on the motion of the President, a vote of thanks to Mrs. Harvie and the executors was carried by acclamation.

The President delivered an ADDRESS TO STUDENTS, [p. 137]; Mr. Beresford Pite [*F.*] reviewed the Designs and Drawings submitted for the Prizes and Studentships [p. 141]; and Mr. H. Heathcote Statham [*F.*], with reference to the subject set for the Soane Medallion, made some observations on the Planning of Concert Halls [p. 145].

The President presented the year's Prizes and introduced the Travelling Students in accordance with the Deed of Award [p. 159], viz.:—

ROYAL INSTITUTE SILVER MEDAL AND TWENTY-FIVE GUINEAS (Essays): to Mr. HUBERT C. CORLETTE [*A.*] for Essay on "The Use and Value of Colour in Architecture," under motto "Spectrum."

A Prize of Books value £5 to Mr. FREDERICK CHARLES EDEN for Essay under motto "C'est une fée qui prodigue le bien ou le mal."

A Certificate of Honourable Mention to Mr. ARTHUR TROYTE GRIFFITH, B.A., Oxon., for Essay under motto "Aucassin."

A Certificate of Honourable Mention to Mr. J. HUMPHREYS JONES [*A.*], B.A. Lond., for Essay under motto "Gloire de Dijon."

A Certificate of Honourable Mention to Mr. ALEXANDER N. PATERSON [*A.*], M.A., for Essay under motto "Non quo sed quo modo."

ROYAL INSTITUTE SILVER MEDAL AND TEN GUINEAS (Drawings): to Mr. HENRY ERNEST KIRBY [*A.*] for his Drawings of St. Paul's Cathedral, under motto "Wren."

A Medal of Merit and Five Guineas to Mr. HEATON COMYN for his Drawings of St. Catharine's College, Cambridge, under motto "Non vi sed sepe."

A Medal of Merit and Five Guineas to Mr. EDWARD F. KNIGHT for his drawings of Southwold Church, under motto "Nox."

SOANE MEDALLION and, under conditions of foreign travel, ONE HUNDRED POUNDS: to Mr. WILLIAM ARTHUR MELLON, for his Design for a Concert Hall, under motto "Ben Marcato."

PUGIN STUDENTSHIP (MEDAL and, subject to conditions of travel, FORTY POUNDS): to Mr. J. HERVEY RUTHERFORD.

A Medal of Merit and Ten Guineas to Mr. E. H. BENNETT.

A Medal of Merit and Five Guineas to Mr. RAMSAY TRAQUAIR.

A Certificate of Honourable Mention to Mr. ALBERT HERBERT [*A.*].

OWEN JONES STUDENTSHIP and, under conditions of travel, ONE HUNDRED POUNDS: to Mr. JOHN STEWART.

GODWIN BURSARY (MEDAL and FORTY POUNDS, subject to conditions of travel): to Mr. E. W. M. WONNACOTT [*A.*].

TITE PRIZE (CERTIFICATE and, subject to conditions of travel, THIRTY POUNDS): to Mr. JAMES B. FULTON for his Design for a Royal Mausoleum, under device "Red Rose."

A Medal of Merit and Five Guineas to Mr. ALEX. MCINNES GARDNER for his Design under motto "Petronius."

A Certificate of Honourable Mention to Mr. ERNEST T. JAGO for his Design under motto "Memoria."

GRISSELL GOLD MEDAL AND TEN GUINEAS: to Mr. G. GARDNER WALLACE for his Design for a Fruit, Flower, and Vegetable Market, under motto "Simplex."

A Certificate of Honourable Mention to Mr. CHARLES A. DAUBNEY for his Design under motto "Jack."

The President then made the following presentation of Prizes in connection with the Institute Examinations:—

ARTHUR CATES PRIZES FOR TESTIMONIES OF STUDY submitted for the Final Examinations held in June and November 1898: Books value Ten Guineas to Mr. ALBERT HERBERT [*A.*], and a like Prize to Mr. H. INIGO THIGGS.

Extra Prize for TESTIMONIES OF STUDY: Cheque for Five Guineas to Mr. H. TANNER, jun.

Extra Prizes to Students who have taken first place in the Final Examination: A Cheque for Five Guineas to Mr. CHARLES RIDDEY [*A.*], and a like Prize to Mr. JOHN KIRKLAND.

The following presentations were made to last year's Travelling Students:—

PUGIN STUDENTSHIP 1898.—Medal and Cheque for £40 to Mr. C. DE GRUCHY.

ALDWINKLE STUDENTSHIP 1898.—Cheque for £25, being second moiety of the total sum, £50, for travel, to Mr. JAMES B. FULTON.

The proceedings were then brought to a close, and the Meeting separated at 9.40 p.m.

